Defining Cool Through a Bricoleur's Studio Practice

APPENDIX

By: Sarah Elizabeth Fortais
Slade School of Fine Art
UCL

PRACTICE-LED PHD IN FINE ART

2018

Primary Supervisor: Dr. Hayley Newman
Secondary Supervisors: Gary Stevens, Dr. Petra Lange-Berndt

I, Sarah Elizabeth Fortais confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Table of Contents

(Note: BIBLIOGRAPHY is located in the back of the Report)

APPENDIX F

APPENDIX G

APPENDIX H

i List of Figures

APPENDIX A
INTRODUCTION

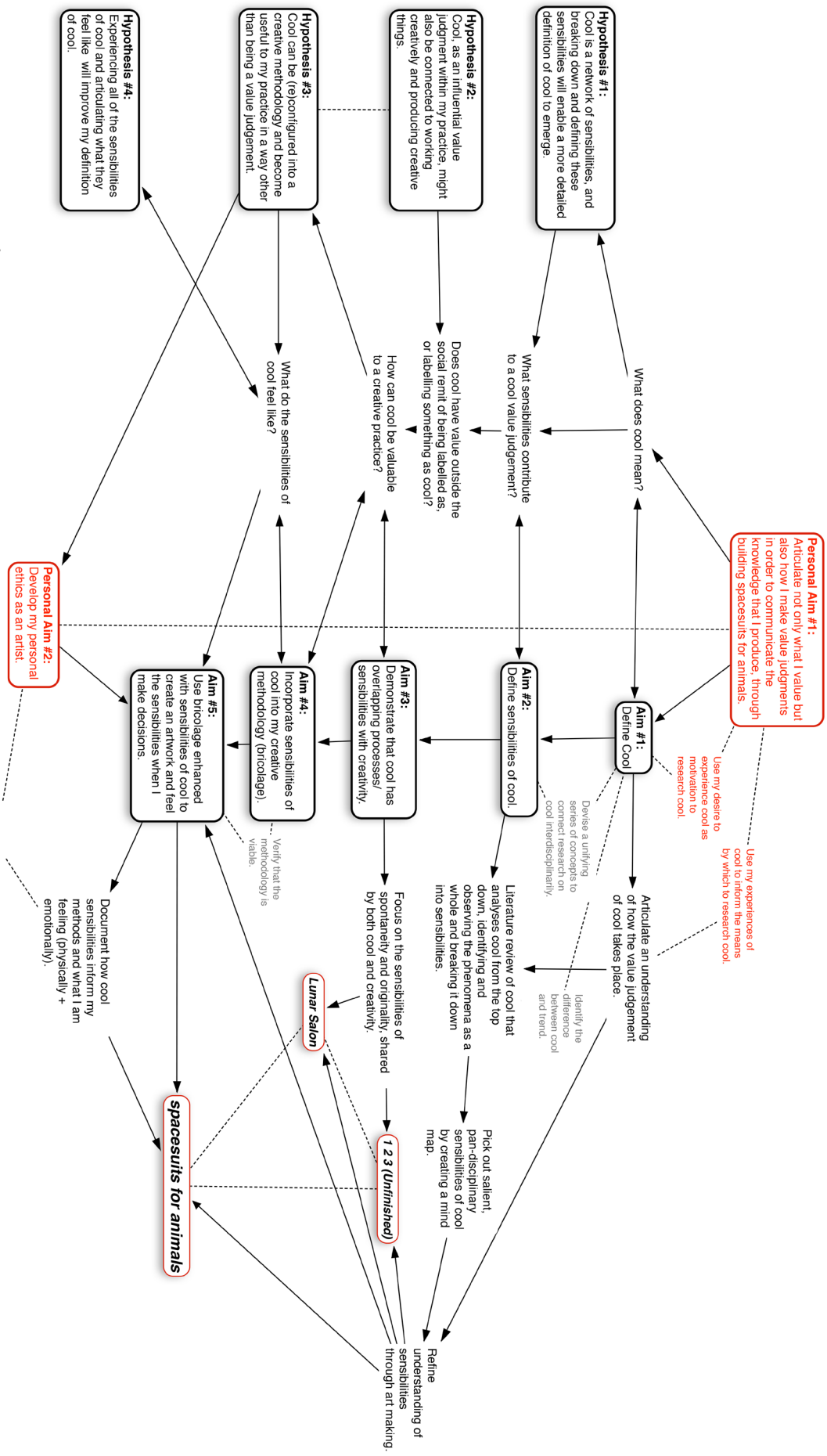


Fig. 1. *Argument Map for Report*, 2017.

Fig. 2. "Installation Part III," *Things Being What I Want Them To Be And Not What They're Supposed To Be*, Dimensions variable, Materials: curtains, motorcycle helmets, bubble visors, acrylic paint, plumbing fixtures, vacuum hoses, shower hoses, nylon rope, fishing wire, winter boots, running shoes, grommets, ducting, aluminum sheet metal, duct tape, high-visibility iron-on tape, electrical tape, aluminum foil tape, laurel tree, soil, leather jackets, nylon, gardening gloves, yogurt cups, purses, camping backpack, newspaper, Velcro, felt, fan motor, car parts, shoelaces, luggage straps, and seatbelt, photographed by Josh Jones, London: Durham House, RSA, 2013.

Fig. 2-4. "Installation Part III," *Things Being What I Want Them To Be And Not What They're Supposed To Be*, Dimensions variable, Materials: curtains, motorcycle helmets, bubble visors, acrylic paint, plumbing fixtures, vacuum hoses, shower hoses, nylon rope, fishing wire, winter boots, running shoes, grommets, ducting, aluminum sheet metal, duct tape, high-visibility iron-on tape, electrical tape, aluminum foil tape, laurel tree, soil, leather jackets, nylon, gardening gloves, yogurt cups, purses, camping backpack, newspaper, Velcro, felt, fan motor, car parts, shoelaces, luggage straps, and seatbelt, photographed by Josh Jones, London: Durham House, RSA, 2013.

Fig. 5-8. "Installation Part II," *Things Being What I Want Them To Be And Not What They're Supposed To Be*, Materials same as previous, London: Central Saint Martins, 2013.

Fig. 9. "Installation Part I," *Things Being What I Want Them To Be And Not What They're Supposed To Be*, Materials same as previous, London: Byam Shaw School of Art, 2012.

APPENDIX B

BRICOLAGE

An Adhocist Manifesto

1. If necessity is the mother of invention, then combining previous systems is the father, and adhocism is the creative offspring. This is true in both nature and culture.

2. In culture, combinations that display themselves, and explain their use and origins, are especially adhocist.

3. Thus adhocism is the style of eureka. It is the origin moment of new things, when the forms are typically hybrid, and like all creative instants, the conjunction of previously separated subsystems. Hence, the style must remain heterogeneous to be understood. Like the best surrealism when seen for the first time, it is experienced as an incongruous marriage; often the copulation of incommensurable things. But as species and things evolve, their ad hoc attachments become supplementary, conventional, and usually simulated. Fully evolved this heterogeneity is integrated and non-ad hoc. Yet an evolved time-city can be an intentional palimpsest of layers, as with New York's High Line.

4. At populist level adhocism is radically democratic and pragmatic, as in the first two stages of revolution. It is also evident after catastrophes such as Hurricane Katrina, or the earthquake in Haiti, when people make do with whatever is at hand.

5. At an elitist level it is efficient and perfected in the parts. Like the Mars space program, where each Rover is assembled from the best subsystem without prejudice of stylistic unity, there is tolerance, even love, of mongrel beauty.

6. Adhocism badly done is a lazy put-together of diverse things. It steals from the bank of the world's resources, pays nothing back, and devalues the currency. Plagiarism and theft are redeemable if acknowledged, and if there is added value: the improvement of either the subsystems or the whole, Palladian, as well as Modern, architecture is based on stolen goods duly footnoted. Academics are usually trained in this confessional art.

7. Philosophically, adhocism tends to be open-ended like an additive list and encyclopedia. Thus it is first cousin to eclecticism, defined as "deriving ideas, tastes, style, etc. from various sources." This is from the Greek eclect, "I choose or select" this part from anywhere. Looking for improvement, we choose the best part without trying to stay within a single canon.

8. If misusing a knife as a screwdriver is forgivable adhocism, then the Swiss Army Knife is its customised, evolutionary offspring. Droog Design is the commercial version, the Japanese Tea Ceremony is the ritualised usage, and Frank Gehry's house for himself typifies the informality. The heterogeneous and informal characterise the cultural genre.

9. Try a thought experiment with the smallest atom; hydrogen or deuterium. Even these simple bodies are a historical smash-up of different units — the proton, electron, and neutron. Only quarks and leptons seem to be non-ad hoc. Evidently the rest of the world coalesced from difference.

10. If most everything on earth comes from something else and is compound, then we live in a pluriverse. Although the laws may be uniform in our universe today, they evolved during the first microseconds, and may be the bylaws of an ad hoc multiverse.[1]

1. Charles Jencks and Nathan Silver, *Adhocism: The Case for Improvisation,* Cambridge: MIT Press, 2013, xix.
(Citation in reference to entire manifesto.)

Bricolage In NASA's Apollo 13 Mission

"Okay, Houston —"[2]

"I believe we've had a problem here."[3]

NASA's Apollo 13 mission was expected to land on the moon (Fra Mauro highlands) but about 56 hours into the mission an oxygen tank exploded, resulting in the cancellation of the mission objectives and full attention being put toward making repairs to get the astronauts home safely. The Lunar Module, which two of the astronauts were initially going to use to land on the moon, became a sort of life boat because it contained the astronauts' only source of oxygen and water while they made the necessary repairs. An exploding oxygen tank was deemed a highly improbable malfunction and so the astronauts and crew had not practiced the scenario in simulation. With limited electricity, fuel, tools, and depleting oxygen, the crew resorted to bricolage to 'fit a square peg into a round hole' and replace a faulty CO_2 scrubber which was needed to restore oxygen levels for the journey home. See Fig. 2. on p46 in the Report for an image of what the astronauts built.

The following transcript (Fig. 10.) is between ground control and the Apollo 13 astronauts, reciting 'how-to' instructions that they devised on the fly to fix one of the world's most sophisticated pieces of machinery with (primarily) duct tape and plastic.

2. Lunar Module Pilot Fred Haise quoted on April 14, 1970. NASA, *Apollo 13 Technical Air-to-Ground Voice Transcription*, Houston: Manned Spacecraft Centre, 1970, https://www.hq.nasa.gov/alsj/a13/AS13_TEC.PDF , p160.

3. Command Module Pilot Jack Swigert, Ibid., p160.
(Often misquoted as: 'Houston, we have a problem.')

Speakers in the transcript may be identified as follows.

Spacecraft:

CDR	Commander	James A. (Jim) Lovell, Jr.
CMP	Command module pilot	John L. Swigert, Jr.
LMP	Lunar module pilot	Fred W. Haise, Jr.
SC	Unidentified crewmember	
MS	Multiple speakers	

Mission Control Centers:

CC	Capsule communicator (CAP COMM)

(above and following pages) Fig. 10. NASA, *Apollo 13 Technical Air-to-Ground Voice Transcription*, Houston: Manned Spacecraft Centre, 1970, https://www.hq.nasa.gov/alsj/a13/AS13_TEC.PDF , i and p10-20.

A LLO 13 AIR-TO-GROUND VOICE TRAN. CRIPTION

Tape 61/1
Page 410

03 17 58 23	CC	Aquarius, Houston. Over.
03 17 58 29	CDR	Go ahead, Houston.
03 17 58 31	CC	Hi, Jim. We've got a flight handover in about 2 minutes, and we'll have a temporary loss of COMM. You don't need to switch antennas. Over.
03 17 58 42	CDR	Okay; fine.
03 18 00 56	CC	Aquarius, Houston through Madrid for a COMM check. How do you read?
03 18 01 02	CDR	Loud and clear, Joe. How me?
03 18 01 05	CC	Okay, Jim.
03 18 06 38	CDR	... asleep?
03 18 06 46	CMP	I ... Maybe ... ...
03 18 06 57	CDR	They have got a procedure for ... the lithium hydroxide ...
03 18 07 16	CDR	... on secondary. We'll let it go to 15. Why don't you get on a headset, and I'll be down ... for ...
03 18 07 37	CDR	Houston, Aquarius.
03 18 07 41	CC	Aquarius, Houston. Go ahead.
03 18 07 46	CDR	Okay. Jack's up with me now and you all ... procedure for making these lithium hydroxide devices, and soon as he gets on his helmet, he'll be ready to copy, and then he'll get started making one.
03 18 08 05	CC	Roger that, Jim. Understand - -
03 18 08 07	CDR	On second thought -
03 18 08 09	CC	Go ahead.
03 18 08 13	CDR	I'll give Jack the headset for a while and he'll copy down your instructions.
03 18 08 30	CC	Okay, Jim. I didn't copy your second thought. Over.

03 18 08 38	CDR	I'll give Jack the headset and let him copy the instructions.
03 18 08 43	CC	Okay, Jim. The way I thought it might be best to do it would be to have you gather the equipment and let us talk you through your procedure while you do it. Now, maybe you could give Jack the headset and - and - get the equipment together, and we'll talk you through the procedure. I think it'll be a little easier to do that way than if you tried to copy it all down - and then go do it.
03 18 09 11	CDR	Okay. Do you have any equipment listed? I'll just get it and give it to him and I can just sit here where I am.
03 18 09 17	CC	Okay. I think the equipment you'll need will be two command module lithium hydroxide canisters, a roll of the gray tape, the two LCGs, because we're going to use the bags from the LCGs, and one - one LM cue card - one of those cardboard cue cards which you will cut off about an inch and a half out from the ring. Now, I think that's all we'll need. Over.
03 18 10 03	CDR	Okay. ... Okay, Houston.
03 18 10 23	CDR	Hello, Houston.
03 18 10 25	CC	Go ahead, Jim.
03 18 10 28	CDR	Okay. That's two lithium hydroxide canisters, one roll of that special gray tape, two LCGs which we're going to use the bags from, one LM cue card and ...
03 18 10 53	CC	Okay. That's affirmative, Jim. If you'll just cut the cue card, which is a handy piece of stiff paper the right size, about an inch and a half from the rings. Just cut off the ring holes, in other words, and you'll have a card about 11 inches long and probably 6 inches wide, something like that.
03 18 11 19	CDR	Okay, ... I'll have Jack gather up the stuff.
03 18 11 22	CC	Okay.
03 18 11 28	CDR	... that roll of gray tape.

03 18 11 34	CMP	... Okay. ... and ... plastic bags.
03 18 11 48	CDR	Yes. Bring it down here. One LM cue card. I get that.
03 18 20 14	CMP	Okay. I got the canisters.
03 18 20 24	CDR	...
03 18 20 38	CMP	...?
03 18 21 16	CMP	...
03 18 21 26	CDR	Okay, Houston; Aquarius.
03 18 21 32	CC	Yes. Aquarius, Houston. Go ahead.
03 18 21 37	CDR	We have gathered the materials, and I can put Jack on the headset and he can copy the instructions ... do you see any need for - or should I copy it to give them to him, or do you think they're too detailed?
03 18 21 55	CC	Why don't you put him on the headsets, Jim, and I'll read it out to him.
03 18 22 02	CDR	Okay.
03 18 22 30	CMP	Okay, Joe. ...
03 18 22 33	CC	Okay, Jack. Did anybody ever tell you that you got a 60-day extension on your income tax. Over.
03 18 22 42	CC	Yes. I think - I think somebody said that when you are out of your country, you get a 60-day extension.
03 18 22 50	CC	Okay; right. Okay. I'm ready to start into the procedure. When you answer me back, speak up - speak up into the microphone, because our downlink is pretty noisy. The first thing we want you to do, and we'll do this on one canister, and then let you go ahead and repeat it on the second. So take one of the LCGs and cut off the outer bag. By cutting along one the heat seals; do it carefully and close to the heat seal, because we may have to use the outer bag if we damage the inner bag. So go ahead and do that, and then we'll do the next step.
03 18 23 37	CMP	Okay. Take an LCG, cut the outer bag by the heat seal. Be careful not to damage the inner bag. Right?

Tape 61/4
Page 413

03 18 23 46	CC	Right. Just cut along one side.
03 18 24 50	CMP	Hey, Houston, Odyssey - or Aquarius. We've done that.
03 18 24 55	CC	Okay, Jack. Now - now remove the inner bag from the outer bag, and cut the inner bag, also, along one of the heat seals down one side.
03 18 25 15	CMP	Okay. Remove the inner bag from the outer bag, cut the inner bag along the heat seal along one side.
03 18 25 22	CC	Okay. That's correct. Do that, and report.
03 18 26 20	CMP	Okay, Joe. We've got that done.
03 18 26 22	CC	Okay, Jack. Now you can put the LCG itself; that is, take it out of the inner bag, put it in the outer bag, and stow it some place; we recommend U-1, but you can stow it wherever it's convenient.
03 18 26 40	CMP	... outer bag ... and stow it back in ...
03 18 26 48	CMP	Okay, Joe. We've got that.
03 18 26 50	CC	Okay. Now pick up one of the lithium hydroxide canisters, and let me describe which end is which. It's approximately square on one - one of the vented flat ends, has the strap, and that end we call the top, the end opposite we call the bottom. Is that clear? Over.
03 18 27 21	CMP	Right.
03 18 27 34	CMP	Okay. I've got it, Joe.
03 18 27 37	CC	Okay. Now then, we're - we want you to take the tape and cut out two pieces about 3 feet long, or a good arm's length, and what you're - what we want you to do with them is to make two belts around the sides of the canister, one belt near the top and one belt near the bottom, with the sticky side out; wrap it around, sticky side out, as tight as possible. It'll probably take both of you to get it nice and snug. Over.
03 18 30 01	CMP	Okay, now -
03 18 30 15	CMP	Okay. Now we've got to make the belt real taut here.

03 18 30 23	CDR	How's that?
03 18 30 35	CMP	Real tight. And then ...
03 18 33 13	CMP	Okay, Joe.
03 18 33 18	CC	Okay, Jack. Did you have - -
03 18 33 19	SC	- - Hey, Houston, are you reading?
03 18 33 24	CC	Jack - -
03 18 33 25	CMP	- - We've got the two belts around the top and the one around the bottom all done.
03 18 33 30	CC	Okay, fine. The next step now is to anchor that tape, and the way we want you to do that is to cut about a 2-foot length off the roll and then tear it lengthwise so that you have two strips about 2 feet long and about a half an inch wide. And you'll wrap those around the canister at right angles, more or less, to the tape that you've got so that it goes across the top and across the bottom; and when it goes across the top and the bottom, put it so that it's outboard of the center hole and try to get it over one of the ridges between the screens, so that it won't block the flow. Is that clear? Over.
03 18 34 15	CMP	Yes, Joe. Very good.
03 18 34 17	CC	Okay. Press on.
03 18 34 22	CMP	Okay. I've got a cut length right here and we'll tear it lengthwise ... and I'm going to go around right here at this ridge all the way around at right angles and anchor it ...
03 18 34 43	CMP	Yes.
03 18 34 46	CMP	Joe, just to clarify that, sticky end down. Right? On the tape that I am putting on now?
03 18 34 54	CC	I didn't quite copy that, Jack. Say again.
03 18 34 58	CMP	Okay. That will be the sticky end down on the container, right?
03 18 35 05	CC	Oh, that's correct. I forgot to say that. That's right.

03 18 35 33	CMP	... hold that one right here, if I can set it.
03 18 37 28	CMP	Okay, Joe; Aquarius. We've got that done.
03 18 37 32	CC	Okay, Jack. The next step is to get the EVA cue card and use it to form an arch over the top of the canister; just tuck one short end under one ridge on the top the other one against the ridge on the other side so that it forms a rounded arch over the top of the canister. You see, Jack, what we're going to do is slip the bag over this whole assembly and the cue card will serve to keep the bag from being sucked down against the screen. Over.
03 18 38 10	CMP	Okay. I got the idea.
03 18 38 13	CC	Okay. And when you've done that, to hold the arch in place, just run a strip of tape across the side of the - that is, across the top of the arch, and anchor it down to the sticky strips along each side.
03 18 38 31	CMP	Okay. I got the idea. Okay. Let me just repeat it here. Take a cue card, form an arch over the top, bringing it under the side here. When we're through, run a piece of tape from the sides across the top of that to anchor to the other side.
03 18 38 51	CC	That's correct.
03 18 38 56	CMP	Okay. It worked.
03 18 39 00	CMP	The top. ... Across the top.
03 18 39 18	CMP	Looks like you're going to have to cut the cue card slightly.
03 18 39 32	CMP	Doesn't have to be really ... over that the only thing we're ... we can just take the scissors and cut off the edge here. The only thing this does, Jim, is prevent this from being sucked down into the container.
03 18 40 28	CMP	Still going to need some more tape. Cut off the end. Okay. Whack off the bottom. ...
03 18 43 34	CMP	Okay, Joe. We've got that arch built, and it's all taped in securely.

03 18 43 41	CC	Okay, Jack. The next step is to stop up the bypass hole, which is the hole in the center of the bottom of the canister; we want to stop that up because we don't want to bypass the flow; and I forgot to tell you to get something to stick in that hole. We recommend that you either use a wetwipe, or cut off a piece of sock and stuff it in there, or you could probably even crumble up some tape and use that. Over.
03 18 44 13	CMP	Okay. We'll start plugging up the bypass hole.
03 18 44 17	CC	Okay.
03 18 44 18	CMP	Plug that hole. We can either - we can put some either - Let's cut a piece of your towel there.
03 18 44 27	CC	Sounds good.

END OF TAPE

APOLLO 13 AIR-TO-GROUND VOICE TRANSCRIPTION

03 18 47 14	CMP	Okay, Houston; Aquarius. We have the bypass hole all plugged up.
03 18 47 21	CC	Okay, Aquarius. The next step is take the inner LCG bag that you cut open, and slip it over the top of the canister, when you do that, orient it so that the ears of the bag, that is, the corners should stick out on the closed end - are oriented along the open ends of the arch, because we're going to snip one of those corners to stick the hose in. Pull it down until it fits snugly over the arch. Over.
03 18 47 56	CMP	Okay, Joe. Slip the bag over the canister so that the arch is at the bottom of the bag and that the ears are along oriented along, let's see - I guess it would be - would be at the sides of the arch.
03 18 48 19	CC	Depends on what you mean by sides - over the - the open ends of the arch.
03 18 48 26	CMP	Right, the open ends of the arch.
03 18 48 28	CC	Okay.
03 18 49 17	CMP	Okay, Joe. We've got that done.
03 18 49 20	CC	Okay. Now press the bag against the sticky belts that we put on the sides of the canister. If there is any excess material, just kind of pleat it, so that it makes a fairly tight seal, and then take another 3-foot strip of sticky tape and wrap it around the outside of the bag opposite the bottom - the bottom sticky belt - to make a nice tight seal.
03 18 49 50	CMP	Okay. I'll do it. Okay. Now they want two strips around here to make a tight seal.
03 18 52 38	CMP	Okay, Joe. We've got the canister inside the bag, two strips around the sides of the bag, real tight, and both sealed.
03 18 52 47	CC	Okay; real fine. Now there's probably a couple of inches of excess bag sticking our around the bottom of the canister. To prevent this from sucking in against the bottom screen, we'd like you to trim it off with the scissors, and when you've done that, we'd like you to cut two more

strips of tape about 12 inches long or so, cut the - tear them lengthwise to get four pieces 12 inches long and 1/2-inch wide, and then use those four strips to secure the bag by passing the strips from the sides of the canister outside the bag around the bottom of the canister and back up the other side, and when you do this, just as you did on the top, make them go outward of the hole and in between the screens. Over.

03 18 53 42	CMP	Okay. You want me to trim the excess material that's sticking off here; trim it at the edge of that canister? Or do you want any excess left over?
03 18 53 52	CC	No, you don't need to have any excess. Just trim it approximately level.
03 18 53 59	CMP	Okay. Let's do that first.
03 18 54 01	CC	Okay.
03 18 54 58	CMP	Okay. Now, Joe, you want to cut four strips, 12 inches long each, 1/2-inch in diameter. Tape that along the outsides of the bag across the ribs.
03 18 55 15	CC	That's correct, Jack. That's just for additional security on the bag. When you get those done, you'll have - You'll have two strips going one way, and the other two will be perpendicular to them.
03 18 57 58	CMP	Okay, Houston; Aquarius. We've got the four strips in place.
03 18 58 03	CC	Okay. We're in business now with the bag, and the next step to perform is to get ready to put the red suit hose, either the commander's or the LMP's because we're - we're going to want you to have both of these made up eventually, into the top of the - of the bag, and to do that you, first of all, have to assure that the - that the red hose is separated from the blue hose. I don't know whether this has been done already, but if it hasn't, what you have to do is cut the outer Beta-cloth sheath down the full length of the - of the hoses and then also cut the rubber ties that secure the two hoses together, and the hoses should come apart and the COMM cable should - should come off. Over.

03 18 59 04	CMP	Okay. Take the - I'm going to want to separate the red hose from the blue hose by cutting this Beta-cloth sheath. Okay. That's in work.
03 18 59 15	CC	Okay.
03 19 00 52	CMP	Okay, Houston; Aquarius. I have the LMP's red hose separated from the others.
03 19 01 00	CC	Okay. Real fine. Now the next step is to cut a diagonal hole in one ear of the - of the plastic bag near the arch. You can pick either one and cut about a 1-1/2 or 2 inch diagonal hole, big enough to slip the red hose through. And when you've done that, you'll just slip the red hose through so that it goes about to the center of the canister. It's - it's - It's not critical except that the opening should be down, and then tape the bag to the hose where it goes in so that it's nice and snug. Over.
03 19 01 40	CMP	Okay. Copy that. We want a 1-1/2 inch hole right here at this ear, and put the hose in here, end down and toward the canister and then we tape the seal around here.
03 19 02 10	CMP	Let's try it. We can always make it bigger if we have to. Fred, get those. ... the center of the arch.
03 19 02 52	CMP	Got to - Got to come in towards the center, all the way to the center. No, no.
03 19 06 17	CMP	Yes. I can't get those big knobs.
03 19 08 39	CMP	... All we have to do is ... tape around here ... tight fit. ...
03 19 10 16	CDR	There it is right there.
03 19 10 18	CMP	Okay, Houston; Aquarius.
03 19 10 20	CC	Aquarius, Houston. Go ahead.
03 19 10 26	CMP	Okay. Our do-it-yourself lithium hydroxide canister change is complete. Joe, the only thing different is that our arch on this piece of cardboard is not big enough to position the red hose with the inlet down, and the inlet - The inlet to - to the red hose is lying on its side, but I think it'll still work.

Tape 62/4
Page 420

03 19 10 53	CC	Okay, Jack. I concur. I think it'll work, too. There's one step that I omitted, which you can do now quite conveniently, and it's this. Where you stuff the towel in the bypass hole on the bottom, we recommend that you cut a few short pieces of tape and just tape that over so it doesn't fall out. Over.
03 19 11 17	CMP	Okay. Will do. Jim, I've got one more little thing to do, and that's ... seal that top.
03 19 12 28	CMP	Okay, Joe. That's done.
03 19 12 30	CC	Okay, Jack. Now the remaining steps are simply suit-loop configuration steps to get this thing into full operation, and our ECS people want to hold off on that until the canister you're working on gets to 7.6 millimeters of mercury, which will probably be another 45 minutes or an hour - it - We're reading 4.7 now. So what we'd like you to do in the interim is to set up the second command module canister the same way you just did the first one, using the commander's hose, and get that all set and probably about that time it'll be time to - to switch over. For your information, when you've got that done and if you've had your breakfast and so on, the next thing I've got for you is a switch-configuration list for the command module, which will represent the - the powerdown, square-1 starting configuration for all our - our preentry checks. Over.
03 19 13 39	CMP	Okay. We'll start setting up the commander's hose configuration the same as the LMP's hose. And I'll get - instead of - I guess you want me to use my launch ... - launch checklist which I'd ...
03 19 14 00	CC	That's affirmative, Jack. What we have done is marked up the lift-off configuration checklist, and we'll run through it whenever you get around to it.
03 19 14 11	CMP	And, I assume that ...
03 19 14 38	CMP	What I'd better do is before I put this thing back in operation, they're going to complete that other canister. I don't know. It should be in operation now. ...

APPENDIX C
COOL

Cooler

The utterance of the word 'cooler' initially appears to express that something is cool and that something else is more cool. However, I don't think cool operates on a spectrum, and this becomes more apparent when looking at specific situations where someone might say 'cooler':

Firstly, let's consider the situation where object A is labelled cool. After this value judgement, object B is then introduced and labelled 'cooler'. Introducing object B significantly changed the environment and since cool is relative to its environment, I think what the person actually means by 'B is cooler' is that A is no longer cool when also considering B, which is cool (e.g. Fonzi might be cool on the set of *Happy Days*, but next to James Dean, he might become uncool). Thus, calling something 'cooler' is sometimes used to signify a reassessment of what is cool in a given situation.

Sometimes the word 'cooler' might be used because one genuinely finds multiple things cool. In this case, the utterance of 'object A is cool and B is cooler' could mean that both A and B cool, but B also has something else desirable about it. Perhaps B is both cool and familiar, or cool and exciting, or cool and aspirational. Another way of describing this situation would be to say that both A and B are cool but one's emotional reaction to B is stronger. In this situation, the person seems to be judging something to be cool and either incorporating other values, or incorporating a more abstract concept of 'better' or 'more'. Using 'cooler' to refer to something being more or better might just be the result of a competitive urge toward gigantism (bigger, faster, etc.) instead of being a sincere expression of personal taste.

Another scenario could be in the case of list-making or collectively brainstorming, where someone is trying to think of cool things and then one-up that suggestion with something *cooler*. What happens in this situation in my experience, is that the last thing listed, which should hypothetically be cooler than all the other things in the list (effectively being the *coolest* thing) is rarely that: it's often uncool. Loosely speaking, this is because trying to create cool is (like trying to be cool) directed towards extrinsic valuation/reward (i.e. cool as a result rather than a byproduct), which is never cool. I discuss why copying or manufacturing cool is uncool in *2.3.7: Trend* and *1 2 3 (Unfinished)*.

I don't think that the term 'cooler' usefully reveals anything about the underlying processes of cool itself. Any utterance of the word 'cooler' is connected to the self-awareness of the value judgement of cool, which I believe inherently forces one to relate to cool differently since one is now attempting to measure cool, rather than identify/experience it. For these reasons, 'cooler' is not discussed further in my research. Nonetheless, the terms 'cooler' and 'coolest' are common parlance. I suggest that these terms can be useful to measure the number of people that find something cool, rather than 'the degree of cool' felt by each person.

Minimum And Maximum Cool

My research does not focus on the social nature of cool in great detail; however, I will offer here my explanation of what I think is the minimum number of people required for something to be cool (or for the concept of cool to exist). Taking multiple discourses of cool into account, I begin with the assumption that cool cannot exist without people. Cool is described as a social valuation and so it seems that there must be at least two people in existence for the value judgement to exist. Dick Pountain and David Robins assert that part of what makes cool desirable is that the utterance and judgement of calling something cool externalises/makes-tangible one's critical voice and aids in socialisation by way of self-presentation.[1] A perfect consensus of values (i.e. the whole world agreeing) would make cool impossible because it would say nothing about yourself. For something to be cool, there needs to be both opposing opinions and agreement, so actually, it seems that a third person needs to exist in order to have two of three people agreeing and one disagreeing that something is cool. I am not sure how this agreement is communicated because people are continuously making estimations about what others think without actually discussing it with them. Subsequently, they are capable of estimating what others might think to be cool without actually talking to them. For this reason, I suggest then that it is only important that someone believes that someone else would call something cool in order for them to think it was cool, which would imply that hypothetically, the minimum number of people which need to exist for cool to exist is one person so long as they could conceive of at least two other people (one agreeing and one disagreeing with them). Along the same lines, 'maximum cool' could in reality be complete consensus so long as a person believed that not everyone agreed.

1. Dick Pountain and David Robins, *Cool Rules: Anatomy of an Attitude*, London: Reaktion, 2000, p31.

THE CONCEPT, "COOL," IN SELECT WEST AND CENTRAL AFRICAN LANGUAGES

Society	*Term*	*Semantic Range*
1. Abakpa	*tebede*[52]	in a cool manner; unrushed; not harsh
2. Baguirmien	*kulu*[53]	to be cold, calm, tranquil
3. Bamana	*súma*[54]	to cool; to calm
4. Bobangi	*tilima*[55]	to be cool; to be allayed; become still; be eased; to settle (a quarrel); be sober
5. Bushman	*kwerre*[56]	to cool; to be cool; to
	ǂǂ koin an kwerre,	
	!gwa ɛxukan ǂǂkhou ǂkai:n	the sun cooled, the sky turned green
6. Diola	*ma-kunkul*[57]	coolness; beauty
7. Edo	*Ewuare* (a title)[58]	it is cool; trouble has ceased
	ofure ekhaor[59]	'cool heart' (tranquillity of mind; reconciliation)
8. Efik	*suk*[60]	to cool; exorcise; reduce to quietude and reason; to moderate the strength of anything
9. Ejagham	*ekwen*	to cool
	ki etok ekwen	may the town be cool (peaceful)
	ki ntea akwen[61]	make your heart cool (be composed, do not be rough, do not make trouble)
10. Fongbe	*fifa*[62]	cool (water); coolness; peace; tranquillity; calm; placidity; gentleness
11. Gã	(vernacular not given)	to cool; to heal by prescribing a diet of cool food and drink[63]
12. Onitsha Igbo	(vernacular not given)	to cool; to render the land safe[64]
13. Kaonde	*tarala*[65]	be cold, wet, green, raw, unripe; be silent; placid, untroubled (as the surface of water); be serene; cease to pain
14. Kenyang	*bekwen*[66]	to cool; to restore order
15. KiKongo	*zizika*	to make cool
	zizila[67]	calm, patient, tolerant, faithful, brave, firm, courageous, imperturbable
16. Kikuyu	*-horo*[68]	inactive, calm, at peace, cool (water), soft (in the sense of cushion or silk)
	mundu wa kanua kahoro	a smooth-tongued person
	horoha	to be reconciled with; be settled
	horohia	atone, pacify, restore to state of ritual well-being
17. Kisongye	*kutaala*[69]	to be cool; to be calm; to be like the river; to be beautiful (excluding music)

(above and next page spread) Fig. 11. Robert Farris Thompson, "The Concept "Cool" In Select West and Central African Languages," *African Arts*, Vol. 7, No. 1, p40-43, 64-67, 89-91, Autumn, 1973, p90-92.
Note that table has been reformatted.

18. Kitabwa	*kutalala*	to be cool (water); to be silent; to calm oneself
	kyalo kyatalala[70]	the land is cool (at peace)
19. Kuba	*hio*[71]	coolness; wetness
20. Lala	*talala*[72]	be cool, silent, still
21. Lomongo	*cicimya*[73]	to cool; moderate; assuage; calm; compose; pacify; set at ease; soothe; tranquillize
	cicimyeefe	to ease pain
	kutsa	to cool
22. Lodagaa	(vernacular not given)	to make cool; render safe to inherit; to lessen social danger in crisis situations (e. g. death)[74]
23. Luo	*mokue*[75]	cool, quiet, peaceful
		to be cool; to cool; to lack savor, be insipid; to be loose-limbed
	mtsikidzi wina wo-zizira	sweet taste of water from a fresh pot
	lero kwa-zizira	it is calm (cool) today
	chironda changa chaleka cha-zizira	my wound is cool (better)
	mtu wanga wa-zizira	the pain in my head is cool (my headache has stopped)
	Mpinjika ikutuniska zawe	the Cross cools (settles) quarrels
25. Runyakore	*kuhoza*[77]	to cool; to plead a case
26. Sesuto	*phola*[78]	make cool
	pholiso	healing; making cool
27. Songhai	*yenendi*[79]	to "make cool" (provide spiritually insured calm; to cool men by the flash and roar of the thundergod; to cool the spirits by the promises made by men)
28. Tshi-luba	*talala*[80]	to cool; pacify; to be cool; humid; become calm; be at peace
	muntu mutalale bu mayi	person cool (peaceful) as water
	mukele mutalale	sweet salt (not biting, not hot)
	kutalala mpala	to lose coolness from his face (through illness)
	kutuya munda kutalala	the heart is entirely cool (at peace)
29. Tumbuka	*kutuna*[81]	to cool down (anger or inflammation)
30. Twi	*dwo*[82]	to cool; to be calmed; to relax from a state of excitement; to make quiet, tame; humble (not proud);to come to rest, feel comfortable
31. Xhosa	*phola*[83]	cool; calm down; heal
32. Woloff	(vernacular not given)	cool; free from quarrels[84]
33. Yakö	*lopon fawa*[85]	"cooling the village" (ceremony of social purification and reconciliation)
34. Yoruba	*tútù*[86]	cool, green, raw, wet, damp
	enun è tútù[87]	silence (his mouth is cool)
	ile yii tútù	verdancy (this land is cool)
	ilé tútù	peace (cool house)
	ó finuntútù ba mi soro	he spoke to me pleasantly (lit. made my mind cool by speaking to me)
35. Zulu	*phola*[88]	heal; be cool; be calm

"COOL" *Notes, continued*

52. Informant: the *Nididem* of Big Qua Town, Calabar. 14 January 1972.
53. H. Gaden, *Essai de Grammaire de la Langue Baguirmienne* (Paris: Ernest Leroux, 1909) p. 93.
54. Moussa Travele, *Petit Dictionnaire Français-Bambara et Bambara-Français* (Paris: Librairie Paul Geuthner, 1913) p. 242; personal communication, Charles Bird.
55. John Whitehead, *Grammar and Dictionary of the Bobangi Language* (London: Kegan, Paul, Trench, Trubner, and Co., 1899) p. 236.
56. Dorothea F. Bleek, *A Bushman Dictionary* (New Haven: American Oriental Society, 1956) p. 113.
57. L.-V. Thomas and P. Fougeyrollas, *L'Art Africain et la Société Senegalaise* (Dakar: Publications de la Faculté des Lettres et Sciences Humaines, 1967) p. 34. There is an alternate term, *mahululen*.
58. Egharevba, *op. cit.*, p. 14.
59. I am indebted to Professor Paula Ben-Amos, Temple University, for this term.
60. Rev. Hugh Goldie, *Dictionary of the Efik Language* (Ridgewood: The Gregg Press, reprint, 1964) p. 279.
61. Informant (for the three phrases in Ejagham): Andreas Ako, of Mfoni, Cameroon, near Mamfe, 8 January 1972.
62. Maxmilien Quénum, *Au Pays des Fon*, Second Edition (Paris: Larose Editeurs, 1938) p. 149.
63. I am indebted to Leith Mullings, Yale University, for this information.
64. Henderson, *op. cit.*, p. 151.
65. R. E. Broughall Woods, *op. cit.*, p. 159.
66. Informants: the elders of the Ngbe house, Tinto, Banyang country, West Cameroon, 8 January 1972. Their precise phrasing was: "all Ekpe Societies 'cool'—because they are *government*."
67. K. E. Laman, *Dictionnaire Kikongo-Français, M-Z* (Hants: Gregg Press, reprint, 1964) p. 1168.
68. T. G. Benson (ed)., *Kikuyu-English Dictionary* (Oxford: Clarendon Press, 1964) p. 164.
69. Merriam, *op. cit.*, p. 267.
70. R. P. Aug. Van Acker, *Dictionnaire Kitabwa-Français et Français-Kitabwa*, Publication de l'Etat Independant du Congo, 1907, p. 214.
71. Althea Brown Edmiston, *Grammar and Dictionary of the Bushongo or Bakuba Language* (Luébo: J. L. Wilson Press, n.d.) p. 522.
72. A. C. Madan, *Lala-Lamba-Wisa & English/English & Lala-Lamba-Wisa Dictionary* (Oxford: Clarendon Press, 1913) p. 238.
73. E. A. and L. Ruskin, *Dictionary of the Lomongo Language* (London: Christian Literature Society, 1928) p. 78.
74. Jack Goody, *Death, Property and the Ancestors*, p. 231. There are further references to the symbolic cooling of objects pertaining to the dead, *viz.* on pp. 69, 89, and 339.
75. R. L. Stafford, *An Elementary Luo Grammar* (Nairobi: Oxford University Press, 1967) p. 116.
76. Rev. David Clement Scott, *A Cyclopaedic Dictionary of the Mang'anja Language* (Edinburgh: Foreign Mission Committee of the Church of Scotland, 1892) p. 679.
77. C. Taylor, *A Simplified Runyankore-Rukiga-English Dictionary* (Nairobi: The Eagle Press, 1959) p. 58.
78. A. Mabille, *Sesuto-English Dictionary* (Morija: Sesuto Book Depot, 1911) p. 349.
79. Jean Rouch, *La Religion et la Magie Songhai* (Paris: Presses Universitaires de France, 1960) p. 223.
80. Em. Willems (ed.), *Dictionnaire Tshiluba-Français* (Leopoldville: Imprimerie de la Société Missionnaire de St. Paul, 1960) p. 309.
81. Rev. William Y. Turner, *Tumbuka-Tonga English Dictionary* (Blantyre: Hetherwick Press, 1952) p. 148.
82. Rev. J. G. Christaller, *Dictionary of the Asante and Fante Language* (Basel: Basel Evangelical Missionary Society, 1933) p. 107.
83. Rev. William J. Davis, *A Dictionary of the Kaffir Language, Part I: Kaffir-English* (London: The Wesleyan Mission House, 1872) pp. 170-1.
84. David P. Gamble, *The Wolof of Senegambia* (London: International African Institute, 1957) p. 67.
85. Forde, *op. cit.*, p. 247.
86. Crowther, *op. cit.*, p. 278. See also p. 166: *itu*, ease, comfort; *tu-ara*, ease, refreshment of a cool breeze; *ituno*, consolation.
87. R. C. Abraham, *Dictionary of Modern Yoruba* (London: University of London Press, 1958) p. 655, *tù*; p. 658, *tútù*.
88. C. L. S. Nyembezi (ed.), *Compact Zulu Dictionary* (Pietermarzburg: Shuter and Shooter, 2nd Edition, 1962) p. 128.

TWIN IMAGES, *Notes, from page 27.*

I would like to express my appreciation to the Kress Foundation for the grant which supported my field-work in Yorubaland from June 1970 to February 1971. I would also like to thank Ekpo Eyo of the Nigerian Museum, Lagos, and William Fagg and John Picton of the British Museum, not only for making the collections in their care available to me, but also for their help and encouragement. Above all, I want to thank all of the Yoruba people who patiently shared their knowledge with me.

Decathecting

When a group of people abandon something that they initially found cool, this in itself is not trend. For this particular group, the thing was cool and then, wasn't. Their abandonment does not need to be a conscious decision, nor do they need to consciously observe that the once-cool thing has become diluted as an identity signal.

This behaviour shares some similarities with D.W. Winnicot's description of 'decathecting' within his model of child development.[2] In the act of decathecting, some thing (like an object or song) that was at first held closely, over time loses meaningfulness. The object is not mourned nor does it undergo repression. It simply becomes 'relegated to limbo'.[3] I suggest that when a group (or individual for that matter) no longer finds something cool, they don't necessarily need to repress the act of considering the thing cool. It could as Winnicott suggests with decathecting, become diffused between a person's, "inner psychic reality and the external world"[3] or perhaps, a new cool object is identified. As Daniel Kahneman notes, "The real limitation of the human mind is its imperfect ability to reconstruct states of knowledge or beliefs that have changed. It becomes hard to recall what you believed before your mind changed."[4] To me, this describes how something could perceptually have been cool one day but not the next. Judging something to be cool is a moment of selection in isolation, specific to only this one instance, guaranteed by the existential presence of just this object.[5] "In other words, the state of being cool is unchanging

2. D. W. Winnicott, *Playing and Reality*, London: Tavistock Publications, 1971, p14.
To decathect means to withdraw one's feelings of attachment from something, possibly in anticipation of a future loss.

3. Winnicott, *Playing and Reality*, p4.

4. Daniel Kahneman. *Thinking Fast and Slow*, Penguin, 2011, p202.

5. Thinking inspired by Rosalind E. Krauss, "Toward Postmodernism," *The Originality of the Avant-Garde and Other Modernist Myths*, Cambridge, MA: MIT Press, 1986.

but the things designated as cool are in flux".[6] In *Lunar Salon* I reflect on why/how cool migrates. As a generative creative methodology, cool doesn't need to be 'fixed' so long as it generates a durable output.

Additionally, decathecting can be linked to an innate biological capacity for calculating what Quartz and Asp term an 'exploration-exploitation tradeoff':

> *Consider a honeybee foraging on yellow flowers. If its environment isn't changing, then once it's found a reliable predictor of reward (the yellow flowers), it should continue visiting yellow flowers. The trouble is, its environment is changing all the time. By sticking with the yellow flower, the bee may be missing out on an even more rewarding blue flower. Every now and then, the bee's brain will decide to check out a blue flower, specifically if the yellow flower is stuck at the same reward level. This maneuver is wired into our brains, and we suspect it has far-reaching implications for brands. For one thing, our brains treat a brand that's not improving (exceeding our expectations) as if it's getting worse.*[7]

I suspect that not only is this phenomena connected to why some cool things seem to suddenly not be cool anymore despite not physically changing, but it also can explain the observed tendency for so-called cool people to frequently change and take risks. Cool is connected to creativity via risk-taking. Increased risk-taking is a dominant trait in people that are very creative, and conversely, fear is a major reason why some people hesitate to express their ideas, especially unconventional ones.[8]

6. Alan G. Artner, "American culture has always warmed to what's cool," *Chicago Tribune News*, March 12, 2006, http://articles.chicagotribune.com/2006-03-12/news/0603110258_1_cool-grammar-american-culture .

7. Quartz and Asp. *How the Brain's...*, p58.

8. "People who are highly susceptible to pressures to conform tend not to be creative." R.S. Nickerson, "Enhancing Creativity," *Handbook of Creativity*, Ed. Robert J. Sternberg, Cambridge Uni-

There also exists a relationship between risk-taking and **originality**, where the more people who find something to be cool and copy it, the less risky it is for more people to embrace and copy it, which causes familiarity and a decrease in both **originality** and value. Both decreased **originality** and underlying extrinsic motivations within acts of copying contribute to making something a trend and uncool.[9]

versity Press, 1999, p414.

See also: Richard S. Crutchfield, "Conformity and creative thinking." *Contemporary approaches to creative thinking*, Ed. G. Gruber, G. Terrell, and M. Wertheimer, New York: Atherton, 1962, p120-140, doi: 10.1037/13117-004 .

9. "An object appears before us. We know it's there but we do not see it, and, for that reason, we can say nothing about it." Viktor Shklovsky speaking about familiarity blindness in *Theory of Prose*, Trans. Benjamin Sher, London: Dalkey Archive Press, 1990, p6.

Definitions Of Related Terms:

Glamour

> *Glamour is not just beauty or luxury. It is not a style but an effect, a quality that depends on the play of imagination.* [...] *War can be glamorous; so can police work or garage entrepreneurship or laboratory science. Their glamour includes the risks but omits the tedium, the sore feet, the dirt, the accounting. Glamour is never boring.* [...] *Through its grace and mystery, glamour transports us from the world of compromises, constraints, and disappointments. It is, to quote a recent fashion blurb, "all about transcending the everyday".*[10]

In both historical and modern day usage of glamour, I noticed that unlike cool, there is a very meticulous agency put into (strictly) appearances. For centuries, glamour denoted a magic spell, enchantment, or illusion cast by gypsies and witches.[11] Glamour also relates to 'fascination' and although early cinema, "did not invent glamour" it, "permanently changed the meaning of the word, tying it not to witchcraft but to the benign and inspiring illusions of stagecraft."[12]

Glamour demands great control but it is primarily put toward editing out, "the discordant details that could break the spell — blemishes on the skin, spots on the windows, electrical wires crossing the facade, piles of bills on the kitchen counter".[13] As I will discuss in my report, with cool, distance might encourage people

10. Virginia Postrel, "A Golden World," *Glamour: fashion + industrial design + architecture*, Ed. Joseph Rosa, Phil Patton, Virginia Postrel, and Valerie Steele, San Francisco Museum of Modern Art in association with New Haven: Yale University Press, 2004, p24; Postrel quoting from *New York*, August 25-September 1, 2003, p9.

11. Brigitte Weingart, ""That Screen Magnetism": Warhol's Glamour," *OCTOBER Magazine,* 132, Spring 2010, p44, doi: 10.1162/octo.2010.132.1.43 .

12. Postrel, *Glamour: fashion + industrial design + architecture*, p26.

13. Ibid., p28.

to gloss over or creatively fill in ideal details when calling someone cool. This is different from glamour however, where there is a conscious erasure of details and calculated image-making on the part of the glamorous.

Cool sensibilities, when used for extrinsic rewards, can mutate into trend which I believe, even in its most capitalist and severe embodiment, would simply normalise uniqueness. This seems less scary to me than eliminating uniqueness, which is the danger that glamour implies. Glamour can be used as a tool to persuade one to, "embrace a scheme to glamorize society by removing all unpredictable or discordant elements, from ethnic minorities to market exchange. As imagery, glamour is evocative and wondrous. As social reality, it is totalitarian."[14]

I also observe that discordant elements and improvisation are opportunities to lose either cool or glamour; however, these conditions are equally an opportunity to become cool, since cool is about self-control and originality.

Kitsch

Sarah: *What can you tell me about kitsch?*

Steve: *That's how you describe hippy cafes.*

Sarah: *Anything with glitter?*

Ed: *I don't think* anything *with glitter…*

Steve: *...considered in poor taste because of excessive garishness or appreciated in an ironic way.*

Sarah: *I think it appeals to some universal quality but in a shallow way, something like being cute… What's garish? Is Jordan garish?*

14. Postrel, *Glamour: fashion + industrial design + architecture*, p33.

[all]: *YES*

Sarah: *When I thought of garish I thought of the colour orange and that's why I thought of Jordan. Is Santa garish?*

Steve: *Santa's grotto in a mall is garish.*

Sarah: *So it's something positive and offensive?*

Steve: *Appreciated in an ironic and knowing way. Mall Santas.*

Sarah: *Aquarium enthusiasts… would that be a kitsch hobby?*

Steve: *No because it's not garish.*

Sarah: *Depending on the fish?* [consensus is no]

Emma: *My uncle likes miniature train sets — is that kitsch?*

Steve: *It's creepy but not kitsch.*

Emma: *It's pretty creepy.*

Steve: *Kitsch would be grottos* [dedicated] *to Our Lady of Guadalupe. Because it's made of tiles, and little, like tinsel… It would be kitsch to us and deeply offensive to* [a venerator] *if we called it kitsch.*

Sarah: *I think for something to be kitsch you have to have someone* [else] *that believes in it or else it's not kitsch.*[15]

Originally, the word '*kitsch*' meant to throw things together; to play in mud.[16] It possibly originates from the German word *wirkitschen* which translates to 'knock-off, cheap, or to collect rubbish from the street'.[17] *Kitsch* now refers to something that capitalises on universal emotions, made for general consumption and which includes nothing that might be morally, spiritually, intellectually, or aesthetically

15. Conversation between Emma Burdon, Nigel (Steve) D'Souza, Sarah Fortais, and Ed Gorrod in my artwork *Lunar Salon*, Slade Research Centre, University College London, England, February 26, 2015.

16. Lorenzo Buj, "Negativia Digitalis," Lecture for course VAS 3380E, "Art Criticism", John Labatt Visual Arts Centre, Western University, London, Canada, January 31, 2011.

17. Edward Allington, "Kitsch," Lecture for "Creative Thesis," Slade School of Fine Art, University College London, England, December 3, 2015.

challenging. *Kitsch* is derived from familiar, overused, archetypal themes. It's the antithesis of creativity and is completely uncritical: experiencing *kitsch* is to go straight through the object and directly to its symbol.[18]

Milan Kundera describes *kitsch* as causing two tears: 'how nice to feel this emotion' and, 'how nice to be part of this brotherhood of universal emotion'.[19] *Kitsch* is always easy to consume because there is no critical distance[20] and no self awareness.[21] Milan Kundera believes that, "Kitsch excludes everything from its purview which is essentially unacceptable in human existence" and, "Kitsch is the absolute denial of shit, in both the literal and the figurative senses of the word."[22]

In the previous *Lunar Salon* excerpt, Steve is not saying that Our Lady of Guadalupe herself is *kitsch*; rather, he is making the point that any material representation of 'ultimate goodness' through excessive embellishment can aesthetically approach *kitsch*. I then pointed out the relative nature of *kitsch*: if one jumps directly to what an object symbolises, there is no space to see that object as *kitsch*. Perhaps this also highlights a relationship between personally experiencing a form of otherness and objective disinterestedness when encountering an object (which could be due to any number of subcultural, cultural, or religious differences), and calling that object *kitsch*. When viewing a cultural object from the position of being outside of its intended context, the object might not illicit the same emotional connection. This subsequently generates the critical distance necessary to judge the object to be *kitsch*.

---

18. Allington, "Kitsch."

19. Milan Kundera, *The Unbearable Lightness of Being*, Trans. Henry Heim, New York: Harper and Row Publishers, 1984, p251.

20. Buj, "Negativia Digitalis." Furthermore, Buj notes that the philosopher Theodor Adorno believed that critical distance was necessary for art to have meaning.

21. Allington, "Kitsch."

22. Kundera, *The Unbearable Lightness*..., p248.

I therefore assert that experiencing *kitsch* and judging something to be *kitsch* are two separate positions. This differs from cool because judging something to be cool involves both the critical assertion of one's personal identity (i.e. making a selection from a plethora of positions, some of which are decidedly uncool/neutral, and exhibiting self-awareness) but at the same time involves an enjoyable and often aspirational emotional experience. Self-awareness and criticality are two things that the experience of *kitsch* suppresses (it is all-consuming) and any positive emotional experiences elicited from the experience of *kitsch* are denied when judging something to be *kitsch*. In other words, I don't think one can experience and judge something to be *kitsch* simultaneously.

Camp

Andrew Ross asserts that camp is both, "the lie that tells the truth" and a subjective matter of, "expressing what's basically serious to you in terms of fun and artifice and elegance".[23] Etymologically, camp comes from, "the French *se camper* (to posture or to flaunt) but with a history of English upper-class usage."[24] Ross believes that camp is intrinsically bound up with the exercise of cultural power and:

> [...] *belongs to the history of the "self-presentation" of arriviste groups.*

23. Andrew Ross, *No Respect*, New York: Routeledge, 1989, p146, citing Philip Core, *Camp: The Lie That Tells The Truth*, London: Plexus, 1984, and Christopher Isherwood, *The World in the Evening*, London: Metheun and Co., 1954, p125.

"You can't camp about something you don't take seriously. You're not making fun of it; you're making fun out of it. You're expressing what's basically serious to you in terms of fun and artifice and elegance. Baroque art is largely camp about religion. The ballet is camp about love […] Do you see at all what I'm getting at?" Isherwood, *The World in the Evening*, p125.

24. Thomas B. Hess, "J'Accuse Marcel Duchamp," *Art News*, 63, no. 10, February 1965, p53.

> *Because of their marginality, because they lack inherited cultural capital, and thus the accredited power to fully legitimize dominant taste, these groups parody their subordinate or uncertain social status* [...].[25]

Ross argues that camp is created through an irreverent retrieval of:

> [...] *not only that which has been excluded from the serious high cultural 'tradition' but also the more salvageable material that has been picked over and found wanting by purveyors of the "antique".*[26]

History's waste becomes irradiated with the 'glamour of resurrection' (not drenched with tawdriness) and investing in this so-called waste enables a, "re-creation of surplus value from forgotten forms of labor."[27] Camp:

> [...] *involves a celebration, on the part of the cognoscenti, of the alienation, distance, and incongruity reflected in the very process by which hitherto unexpected value can be located in some obscure or exorbitant object.*[28]

Andy Warhol, who was interested in both camp and glamour, has said:

> *I always like to work on leftovers, doing the leftover things. Things that were discarded and that everybody knew were no good, I always thought had a great potential to be funny. It was like recycling*

25. Ross, *No Respect*, p146, citing Mark Booth, *Camp*, New York: Quartet Books. 1983, p30.

26. Andrew Ross, "Uses of Camp," *Camp Grounds: Style and Homosexuality*, Ed. David Bergman, Amherst: University of Massachuests Press, 1993, p66.

27. Ross, "Uses of Camp," *Camp Grounds: Style and Homosexuality*, p66.

28. Hess, "J'Accuse Marcel Duchamp," p53.

> *work. I always thought there was a lot of humour in leftovers… I'm not saying that popular taste is bad so that what's leftover is probably bad, but if you can take it and make it good or at least interesting, then you're not wasting as much* [...] *and you're running your business as a byproduct of other businesses. Of other directly competitive businesses, as a matter of fact. So that's a very economical operating procedure. It's also the funniest operating procedure because, as I said, leftovers are inherently funny.*[29]

Booth notes that, "Camp is primarily a matter of self-presentation rather than of sensibility."[30] And with respect to the use of parody to generate value, I believe camp is not about passing something for being 'real' (i.e. a real man, a real woman, a straight man, a real masterpiece, etc.) but instead makes apparent that *all* things try to pass as 'real' while simultaneously disavowing the effort and deception involved. Susan Sontag explains that,

> *Camp sees everything in quotation marks. It's not a lamp, but a "lamp"; not a woman, but a "woman." To perceive Camp in objects and persons is to understand Being-as-Playing-a-Role. It is the farthest extension* [...] *of the metaphor of life as theater.*[31]

I think that camp involves being self-conscious of the dominant taste and values in society and using that information as part of a strategy to generate a place in that social hierarchy. Camp seeks extrinsic validation (though not nec-

29. Andy Warhol, *The Philosophy of Andy Warhol (From A to B and Back Again)*, New York: Harcourt Brace Jonanovich, 1975, p93.

30. Booth, *Camp*, p17.

31. Susan Sontag, "Notes on "Camp"," *Against Interpretation*, New York: Farrar, Straus & Giroux, 1966, p280.

essarily exclusively) even though it employs parody and subversion to break into (or break apart) the system within which it operates. Both cool and camp as embodied concepts are about alternative forms of personal dignity, self-control, and self-awareness; however, camp consciously invests in culturally dictated 'obscure' or 'alternative' items in order to expose the concept of 'normal' or 'real' behaviour as a problematic simulation within that established system, and cool uses items irrespective of their cultural valuation in order to generate a personal value system that ultimately ignores social hierarchy and its constructed modes of valuation.

APPENDIX D

NASA

NASA Quarantine Procedures: The Bizarre Circumstances In Which The Astronauts Were Received Back On Earth

The modified naval aircraft carrier USS Hornet recovered the Apollo 11 astronauts on July 24th, 1969. President Nixon was on board Hornet to welcome the returning astronauts back to Earth. The astronauts lived aboard Hornet in quarantine as they awaited transfer to the Lunar Receiving Laboratory at Houston. The Anticontamination Chamber Post-Flight Press Conference took place as follows:

SCENE I.

A middle-aged man in a grey suit waits outside an oversized polytunnel. Beside the tunnel are white fence posts sunk into white buckets with fabric hanging between them, like makeshift valet rope. The polytunnel is attached to a Mobile Quarantine Facility (MQF) made from a converted Airstream trailer. This is all set on a white plastic floor, inside the hangar of the USS Hornet, which is still located in the Pacific Ocean. Strip lighting focused on the white-floored area makes it appear like a film set. A large crew approaches the white floor, including naval officers, men in grey suits, and members of the army clad in khaki. A big white sign reading 'HORNET PLUS THREE' hangs on the left wall of the hangar. President Richard Nixon emerges from the group and steps onto the white floor. The original grey-suited man guides the president and two others to the Airstream trailer which has one window facing the camera, about 2x3ft with small khaki curtains pulled to each side. Above the window reads a different sign: 'HORNET + 3'. After several minutes of waiting, these men are directed to a man wearing a Biological Isolation Garment (a pale green hazard suit and a gas mask that is doused with bleach and iodine). The men are led back around to the far side of the hangar.

SCENE II.

The next shot is zoomed out fully and the curtains are closed on the Airstream trailer. The navy helicopter which retrieved the astronauts is wheeled in (blades safely secured) and a set of stairs is wheeled against the helicopter. The astronauts emerge in pale green Biological Isolation Garments and are accompanied by an unmasked man in an orange mechanic's suit. The astronauts wave and then enter the Airstream trailer from the small front door. The orange man (a recovery engineer) follows them in and is later joined by the crew surgeon. The door is sealed and shortly after, the helicopter is rolled away. A man in a pastel green short-sleeved shirt and black tie walks in and sprays the stairs with a red canister filled with disinfectant. Like a clown in some sort of circus act, he follows the 20ft path that the astronauts had walked to the MQF, continuously spraying.

SCENE III.

The camera focuses on the Airstream trailer only, and the blinds are closed. NASA, military, and navy officials stand around a man holding a black telephone receiver to his ear, which is attached to a large metal panel covered in dials. A suitcase with the NASA meatball logo is set on top of the panel. The man passes the phone to a taller man in a black suit. He nods a few times and then hands the phone back. People keep looking at their watches and pacing. In the background, a naval band holds brass instruments, mostly French horns and a tuba.

SCENE IV.

The presidential procession approaches in a tight formation, with the band positioned along the left side of the white flooring. There's a black rug in front of the MQF now. The president walks toward the window unaccompanied. Like a puppet show the curtains begin to rustle and President Nixon bends down and waves at the

window. The curtain slides to the left… then to the right… and Mike Collins makes a quick wave. All three astronauts, now all hunched together and stooping to fit into the low-set window area wave to the president who is still bending and starting to clap. They communicate with microphones: the astronauts each hold their own microphone and the president uses a microphone stand. They chat and laugh for several minutes. Colonel Frank Borman of NASA is called over to have a few words with the group. When the camera pans out it shows that the Airstream trailer (MQF) is flanked by bannermen holding the American flag on the left and the Apollo 11 mission logo (the eagle) on the right. The USS Hornet's Chaplain Piirto is called to lead everyone in prayer and everyone in the hangar bows their heads. The astronauts stand up so just their crotches are in the window. Everyone else in the crowd is at attention for the national anthem. As the camera pans out, some sort of radiator can be seen which is presumably drying the floor. The president exits briskly and the procession follows.

END SCENE.

Apollo's quarantine procedures were (like the missions themselves) incredibly human and imperfect. The astronauts appeared to breathe separate air from the president in their meeting, being separated by a piece of glass, but minutes earlier they walked from the rescue helicopter to the quarantine facility, immediately undermining any plague-model quarantine procedure. Quarantine seemed to only offer a symbolic separation.

(top of next page) Fig. 12. NASA, "Traditional post-flight cake cutting ceremony was altered because the Apollo 11 astronauts were restricted to the Mobile Quarantine Facility," *ap11-69-h-1224hr*, scanned by Ed Hengeveld, July 24, 1969, https://www.hq.nasa.gov/alsj/a11/ap11-69-H-1224HR.jpg .

(bottom of next page) Fig. 13. NASA, "Apollo 11 Astronauts In Prayer Within Quarantine Facility," *ap11-ksc-69-658hr*, Marshall Image Exchange #: 6901203, NASA Image Exchange #: 6901203 MSFC-6901203, Marshall Space Flight Center Negative Number: 6901203, July 24, 1969, https://mix.msfc.nasa.gov/abstracts.php?p=3024 .
Apollo 11 Astronauts in prayer with President Nixon and Chaplain Piirto.


HORNET + 3


HORNET + 3

Astronaut Quotes And Anecdotes:

Neil Armstrong

I.

Though he may be blessed with an all-American name, sandy-haired and freckle-faced boyish good looks, and a remarkable résumé, Armstrong is the polar opposite of "down to earth." Described variously as intense, aloof, enigmatic, impassive, and unknowable even by the people who know him, he is, at the same time, cool and aggressive, egg-headed and hard-nosed, both a fighter pilot and a physics professor. Armstrong even befuddled Norman Mailer, who described Apollo 11's commander as simultaneously innocent and sinister, "extraordinarily remote," "apparently in communion with some string in the universe others did not think to play," and "simply not like other men."[1]

Some who worked with Neil Armstrong described him as asocial and hyper-rational, to the extent that, in conversation, it wasn't clear whether or not he was listening to anything one said. A friend commented, "If you tell Neil that black is white, he may agree with you just to avoid argument." But another added, "No, most likely he won't say anything at all. He'll smile at you and you'll think he is agreeing. Later on, you'll remember that he didn't say a word."[2]

---

1. Nelson, *Rocket Men*, p47, quoting Norman Mailer, *Of a Fire on the Moon*, Boston: Little, Brown, and Company, 1968, p27.

2. Dora Jane Hamblin (quoting anonymous friends of Neil Armstrong), "He Could Fly Before He Could Drive," *Life*, https://books.google.co.uk/books?id=oEwEAAAAMBAJ&lpg=PA1&rview=1&pg=PA1&redir_esc=y#v=onepage&q=black%20is%20white&f=false .

II.

For heaven's sake, I loathe danger, especially if it's useless; danger is the most irritating aspect of our job. How can a perfectly normal technological fact be turned into adventure? And why should steering a spacecraft be risking your life? It would be as illogical as risking your life when you use an electric mixer to make yourself a milkshake. There should be nothing dangerous about making a milkshake and there should be nothing dangerous about steering a spacecraft. Once you've granted this concept, you no longer think in terms of adventure, the urge to go up is for the sake of going up...

[...] *I don't understand the ones who are anxious to be the first. It's all nonsense, kid stuff, just romanticism unworthy of our rational age. I rule out the possibility of agreeing to go up if I thought I might not come back, unless it were technically indispensable. I mean, testing a jet is dangerous but technically indispensable. Dying in space or on the Moon is not technically indispensable and consequently if I had to choose between death while testing a jet and death on the Moon, I'd choose death while testing a jet.*[3]

III.

But, a bit about Neil Armstrong. All through the preparation for the mission, I was absolutely amazed at how quiet, how calm he was. We'd go through debriefings, and generally Buzz would do most of the speaking. He would take most of the notes. And the quiet, absolutely

3. Neil Armstrong quoted in Oriana Fallaci, *If the Sun Dies*, Trans. Pamela Swinglehurst, New York: Athenuem, 1967, p298-299, https://archive/org/details/ifsundies00fall .

superbly confident assurance that Neil had, also, was a—in retrospect was pretty inspirational in itself.

Here's a guy who knew he was destined to do a job. And I believe that, again, he believed that from the day he was born, this was a job that he was singled out to do. I think every person who ever worked with Neil had such a respect for the very quiet confidence that he exuded; his incredibly professional demeanor. He was literally a man for all ages within Mission Control. And I think every person today has that same respect. Even it's increased.

After the mission, the one time that I ever remember Neil talking, almost with boyish glee, was: he was sitting over in a corner (I think it was over in the conference room [...] *and we were just shooting the breeze. And all of a sudden he just says, "You know, I think this says a lot for American craftsmanship,"* [...] *And Neil proceeded to elaborate on his feelings about the American craftsmanship and the ability to do something so intensely complex and be successful the first time around, that it was marvelous.*[4]

IV.

Walter Cronkite: *Phew! Wow, boy! Man on the Moon!* [pulls off glasses and wipes sweat from his forehead]

4. Gene Krantz interviewed by Roy Neal, *NASA Johnson Space Certer Oral History Project*, Houston, Texas, April 28, 1999, https://www.jsc.nasa.gov/history/oral_histories/KranzEF/KranzEF_4-28-99.htm .

Neil Armstrong: *So far so good. Let's get on with it.*[5]

V.

Nine years after landing on the Moon, Armstrong was working at his Ohio dairy farm when his wedding ring stuck on a latch and tore off part of his finger. "Instead of screaming and running for a doctor, he scooted around until he found his finger," iced it, drove to the hospital, and had it reattached.[6]

Mike Collins

A year prior to the Apollo 11 mission, doctors found a bone spur and a loose disk in Collin's neck that were pressing on his spinal cord (causing loss of sensation and movement of his legs). Collins elected for two high-risk surgeries to correct these ailments, recovered fully, and returned to flying status.

David Nevin: *He discusses the episode today with utter matter-of-fact-ness and no hint of emotion. And yet this was a devastating turn of events. It cost him a position on Apollo 8, the first flight around the moon. His whole future as a space pilot and an Air Force officer had been in the balance. Surely, there was distress and trauma?*

5. CBS, *CBS Evening News* (television broadcast of the Apollo 11 moon landing with news anchor Walter Cronkite), July 20, 1969.

6. Nelson, *Rocket Men,* p48, quoting Kathy Sawyer, "The Quiet Man on the Moon," *The Washington Post*, July 11, 1999, https://www.washingtonpost.com/wp-srv/national/longterm/space/armstrongfull.htm .

Mike Collins: *Well, it seems to me that trauma comes from having to make decisions that are very nearly 50-50. You know, 50.1 against 49.9. Those are the things that really bug people. But here there was no doubt. I had this thing creeping up the left side of my body, getting worse, and the salient fact was that it had to be stopped and the operation was the way to stop it. All the other things — what failure could mean to my career and so on — were only background noise.*[7]

7. David Nevin interviewing Mike Collins, "Collins has cool to cope with space and the Easter bunny," *Life Magazine*, Time Inc., July 4, 1969, https://books.google.co.uk/books?id=oE-wEAAAAMBAJ&lpg=PA1&rview=1&pg=PA1&redir_esc=y#v=onepage&q&f=false .

APPENDIX E

1 2 3 (Unfinished) (2014-2016)

The Distinction Between Differentials And My Differential-Like Methodology

As stated in the report, I did not use differentials as a methodology strictly and instead, set up a methodology that used many *differential-like* strategies to make qualitative rather than quantitative measurements. I realised this distinction when trying to follow the idea of differentials too closely, specifically when trying to use differentials to analyse cool directly.

Consider the following line of reasoning: *My research is predicated on the belief that cool is a defined quantity insofar as it is detectable. Cool however, is currently difficult to explicitly define because it is based on unknown variables with unknown relationships to cool. I thus considered that using derivatives could be a way to set up cool as a function with unknown variables and then determine those variables. In other words, using differentials as a methodology would enable me to consider cool an equation that could (theoretically) be calculated. In this cool equation, it would be possible to manipulate variables and observe how cool changes. If cool = x, then the derivative (dx) would literally translate to 'a small quantity of cool'...*

I can't plug cool and bricolage into a differential equation though (even acknowledging the equation itself would be immensely complex) because cool itself is not a spectrum. To place cool on a spectrum is fundamentally flawed because it would give objective value to cool and make it possible to look at amounts of cool or units of cool.[1]

I believe that the framework of cool consists of three value options: cool,

1. I did briefly contemplate putting forward a theory involving a unit to measure cool (called Fonzi's (obviously). This is with credit to Nigel Steve D'Souza, who helped me to come up with the unit naming in conversation in early April, 2014.)

uncool, or neutral. The only change that can be observed is whether one of the three value options is swapped for another e.g. something moving from cool to uncool, or from neutral to cool. When something is cool, it is always contextually cool. This means that if you first have three different objects (A, B, C) someone might consider object A cool, but when A is placed next to a new object, D, suddenly A might be uncool. It's still possible for object B or C to be cool when next to D though. Or in another setting, a completely different series of relationships might exist. This is because cool is not an inherent quality and can be gained or lost at any time. As such, cool behaves more like a switch that flicks on in certain contexts (but remains off most of the time because cool is also exclusive).

A rigid differential methodology thus doesn't work in my research project because cool does not fit the description of a derivative. Similarly, considering **originality** and documentation strictly as derivatives would present similar issues with quantitative vs. qualitative measurement. By using a Differential-Like methodology, I can interrogate **originality** and documentation qualitatively in *1 2 3 (Unfinished)*.

Even with this adjustment to a Differential-Like methodology, I still find it useful to loosely consider cool as the output of a function with unknown variables. Cool is dependent on things, which are dependent on things… cool as a function is incredibly complex and I will never be able to write it down fully, but the attempt leads me to productive thought experiments such as the above, and different ways of thinking about the sensibilities of cool.

Research Findings Relating To Documentation

I believe that *1 2 3 (Unfinished)* successfully utilised documentation as an active and generative process. Setting up a project where documentation was also artwork allowed the documentation (and research) to become playful and drew attention to the materiality of even the most conservative documentation. For instance, the Part 2 book of documentation was also valued as a physical object, being given a custom wall niche and exposing the craftsmanship of its handmade binding. It seems that any form of documentation involves the production of new material, even if it's just a vessel to hold or display it. As an artwork then, *1 2 3 (Unfinished)* was successfully able to generate value for documentation beyond communicating and recording an event. In this sense, my proposed questions were superficial, since simply creating an artwork should be sufficient to produce positive answers to my initial questions.

One question I asked initially was if using different kinds of documentation together could communicate an original event more effectively and/or produce more interesting findings. In Part 2 of *1 2 3 (Unfinished)*, the audio/video performance, book, and installation all worked together to deliver a more detailed experience of the Part 1 performance and creative process. However, in my opinion, Part 2 did not communicate what Part 1 felt like while it was being made. This appears to be an intrinsic limitation to documentation because it always at some level communicates in the past tense. Documentation is in effect a form of translation of the event to past tense that can also be generative in its pursuit of recreating and communicating something in its entirety, but nonetheless compresses time and forces a linear narrative onto events which might otherwise be simultaneous and/or improvisational. This compression is something I rediscovered through the process of writing my

report.

As part of my Differential-Like methodology, exploring documentation within the project *1 2 3 (Unfinished)* enabled me to research cool. The overarching relationship between cool and documentation comes from the relationship that cool and documentation each bear to the terms copy, mimic, simulate, recreate, and to creativity. Simulate is the term I believe to be most associated with being cool: a cool person may have sought to copy their cool idols, but they in fact simulated them because they conducted themselves in a unique way. Traditional concepts of documentation do not readily align with simulation and must be somewhat extended to encompass it. This extension however, allows documentation to shake off a passive, restricted position and become a more effective communicator. Documentation that incorporates simulation is able to provide a real and powerful experience, which is valuable in characterising the subject of documentation in the present tense. In *1 2 3 (Unfinished)* this was incorporated through small gestures such as wearing ear defenders and pressing the ENGINE START button in Part 2, and opening and inserting the distributed ear plugs in Part 3. The volume of sound experienced in Part 3 further physicalised the experience of listening, and the strict 5pm start time of the event generated anticipation, both of which simulated a real rocket launch. Taken as a whole, *1 2 3 (Unfinished)* proposes that both cool and documentation share both generative and positive relationships to the act of simulating.

APOLLO 11 ROCKET OVERVIEW

Key rocket launch processes:

· The crew members close and lock their visors (T-2 minutes)
Orbiter transfers from ground to internal power (T-50 seconds)
· Ground launch sequencer begins auto sequence start (T-31 seconds)
· Launch pad sound suppression system activates (waterfalls) (T-16 seconds)
· Main engine hydrogen burn-off system activates (T-10 seconds)
· Main engine start (T-6.6 seconds)[4]

The hardware for the Apollo 11 mission consisted of two major parts: the Saturn launch vehicle (commonly called Saturn V) and the Apollo spacecraft. Collectively, the two parts were called the Apollo/Saturn space vehicle.[5]

The Saturn launch vehicle consisted of three stages: S-IC, S-II, and S-IVB. It also contained an instrument unit (commonly called the wedding ring) to guide the launch vehicle.

Stage S-IC is a cluster of five engines firing simultaneously. Ten seconds of burn time enables the vehicle to clear the launch tower whilst travelling at a speed of about 56m.p.h..[6] Two and a half minutes of burn time enables the vehicle to reach 40miles at a speed of over 5000m.p.h.. When the S-IC stops burning, eight retro-rockets detach it from the vehicle and the S-II starts firing. S-II is also a cluster of five engines. Planned performance for this stage is to reach an altitude of 114miles at a speed of 15,300m.p.h.. The engines blow-off about nine minutes after launch. Stage S-IVB is a single-chamber engine that raises the vehicle to orbital speed (17,400m.p.h.) at an altitude of about 120miles. It burns for about two and a half minutes before being shut down. Upon reaching orbit, the S-IVB is re-lit for another five minutes to raise the speed to earth escape velocity (24,400m.p.h.). The S-IVB also has reserve power to compensate for lack of thrust in previous stages.

The Apollo spacecraft consisted of the command/service module (CM/SM) and lunar module (LM), as well as the launch escape system, boost protective cover, and spacecraft/lunar module adapter (SLA). LM was called 'Eagle' and the CM/SM was called 'Columbia'. The term 'spacecraft' and the name 'Apollo' collectively refer to the CM/SM and LM.[7]

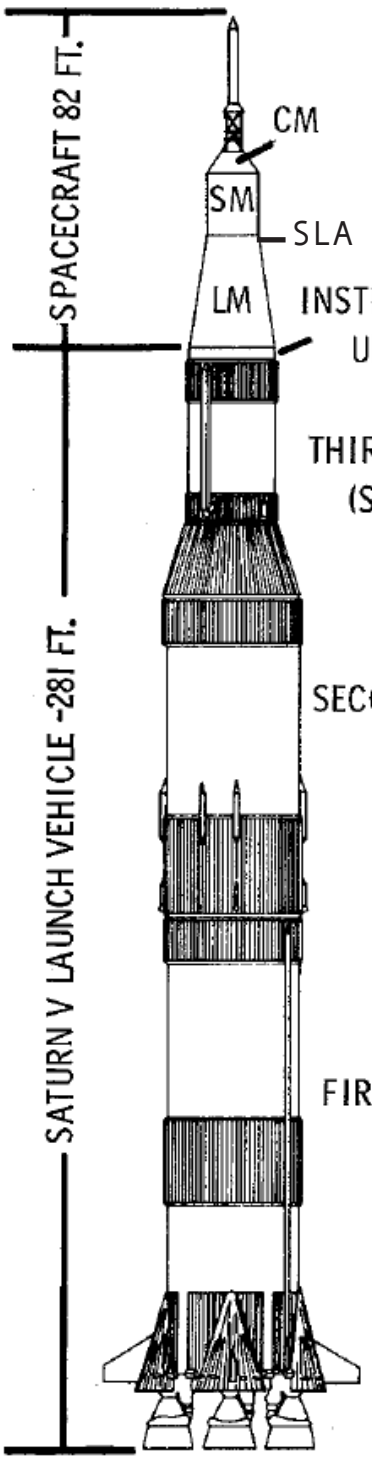
The CM (also called the capsule) was the only part to the entire Apollo/Saturn space vehicle that returned to Earth intact (everything else was discarded to save on weight). The CM was the home base for the astronauts throughout the week-long mission. With a volume of 6.2m^3, it was comparable to the interior volume of a minivan. The entire CM was covered by ablative material that burned off to absorb the heat of re-entry into earth's atmosphere.[8]

The SM was connected to the instrument unit on the launch vehicle by the SLA. The SLA also housed and protected the LM during the launch phase of the mission. The SLA was made of aluminum covered with a thin sheet of cork, painted white.[9]

The LM (Eagle) was the portion of the Apollo spacecraft that landed on the Moon and then returned to lunar orbit. Aerodynamic contouring was not required because the moon has only 1/6-G. The LM's skin was the thickness of three sheets of kitchen foil. There were no seats and so during decent and ascent, the crew stood tethered to the floor by spring loaded cables.[10]

[4] Ward, *Countdown to a Moon...*, p340; [5] Ibid., p9; [6] Ward, *Countdown to a Moon...*, p348; [7] Ibid., p67; [8] Ibid., p69-79; [9] NASA, *Two Engines Out but Still Running*, https://www.hq.nasa.gov/office/pao/History/SP-4204/ch20-3.html ; [10] Ward, *Countdown to a Moon...*, p72-73.

SATURN V LAUNCH VEHICLE



FIRST STAGE (S-IC)	
DIAMETER	33 FEET
HEIGHT	138 FEET
WEIGHT	5,022,674 LBS. FUELED 288,750 LBS. DRY
ENGINES	FIVE F-1
PROPELLANTS	LIQUID OXYGEN (3,307,855 LBS., 346,372 GALS.) RP-1 (KEROSENE) - (1,426,069 LBS., 212,846 GALS.)
THRUST	7,653,854 LBS. AT LIFTOFF

SECOND STAGE (S-II)	
DIAMETER	33 FEET
HEIGHT	81.5 FEET
WEIGHT	1,059,171 LBS. FUELED 79,918 LBS. DRY
ENGINES	FIVE J-2
PROPELLANTS	LIQUID OXYGEN (821,022 LBS., 85,973 GALS.) LIQUID HYDROGEN (158,221 LBS., 282,555 GALS.)
THRUST	1,120,216 TO 1,157,707 LBS.
INTERSTAGE	1,353 (SMALL) 8,750 (LARGE)

THIRD STAGE (S-IVB)	
DIAMETER	21.7 FEET
HEIGHT	58.3 FEET
WEIGHT	260,523 LBS. FUELED 25,000 LBS. DRY
ENGINES	ONE J-2
PROPELLANTS	LIQUID OXYGEN (192,023 LBS., 20,107 GALS.) LIQUID HYDROGEN (43,500 LBS., 77,680 GALS.)
THRUST	178,161 TO 203,779 LBS.
INTERSTAGE	8,081 LBS.

INSTRUMENT UNIT	
DIAMETER	21.7 FEET
HEIGHT	3 FEET
WEIGHT	4,306 LBS.

NOTE: WEIGHTS AND MEASURES GIVEN ABOVE ARE FOR THE NOMINAL VEHICLE CONFIGURATION FOR APOLLO 11. THE FIGURES MAY VARY SLIGHTLY DUE TO CHANGES BEFORE LAUNCH TO MEET CHANGING CONDITIONS. WEIGHTS NOT INCLUDED IN ABOVE ARE FROST AND MISCELLANEOUS SMALLER ITEMS.

Fig. 14. NASA, "Saturn V Launch Vehicle," *Apollo 11 Lunar Landing Mission Press Kit*, Washington D.C., July 6, 1969, p109.
I have edited this image to include the location of the SLA.

Creating The Score

To create the score:

> *We set about creating a basic visual timeline of the simulated launch, showing how the overall sound would change, grow, and then fade away throughout the piece. We also plotted the 'detail' noises on this timeline to show where these would come in and drop out during the piece.*[11]

Once the launch was plotted (Fig. 15.), we were able to:

> […] *visualise the entire piece, and begin to assign the different sounds to the five drum kits in a way that was both pragmatic (for example in minimising how often each kit had to swap sticks/brushes etc.) and also kept an appropriate level of interaction between the five parts* [Fig. 16.]. *This could be in terms of volume, so that no one part dominated the overall sound (unless it was supposed to), or to make certain sounds move around the circle of drummers, or in one case to act as a call-and-response between two drum kits on different sides of the circle, corresponding to radio chatter between the control room and the astronauts on the rocket.*[11]

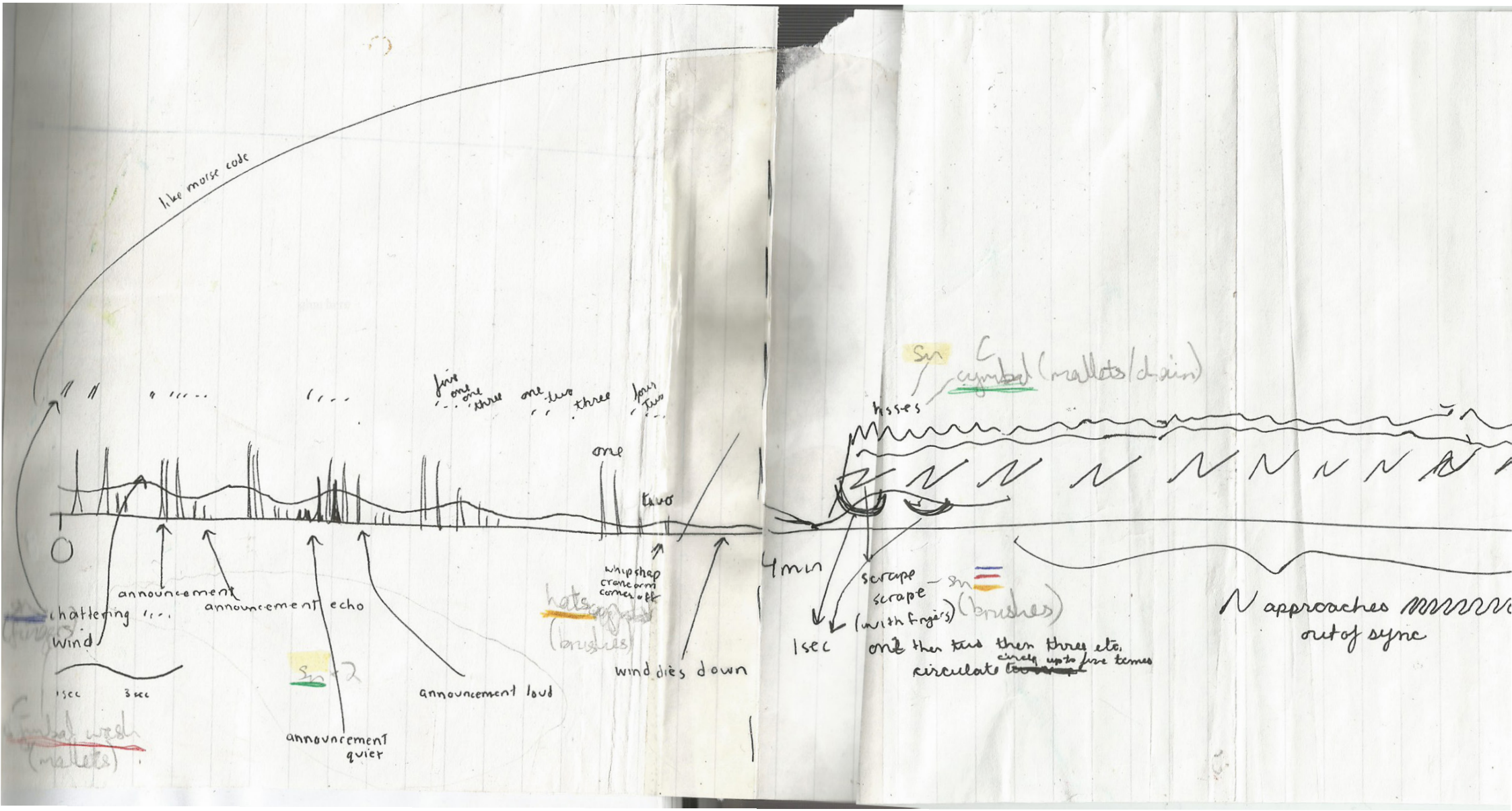
After all of the sounds were designated between the five drum kits (Fig. 16-17.), Gorrod recorded himself talking through all the cues for sounds and events of the simulated launch, so that he could listen to it as a guide during his performances.

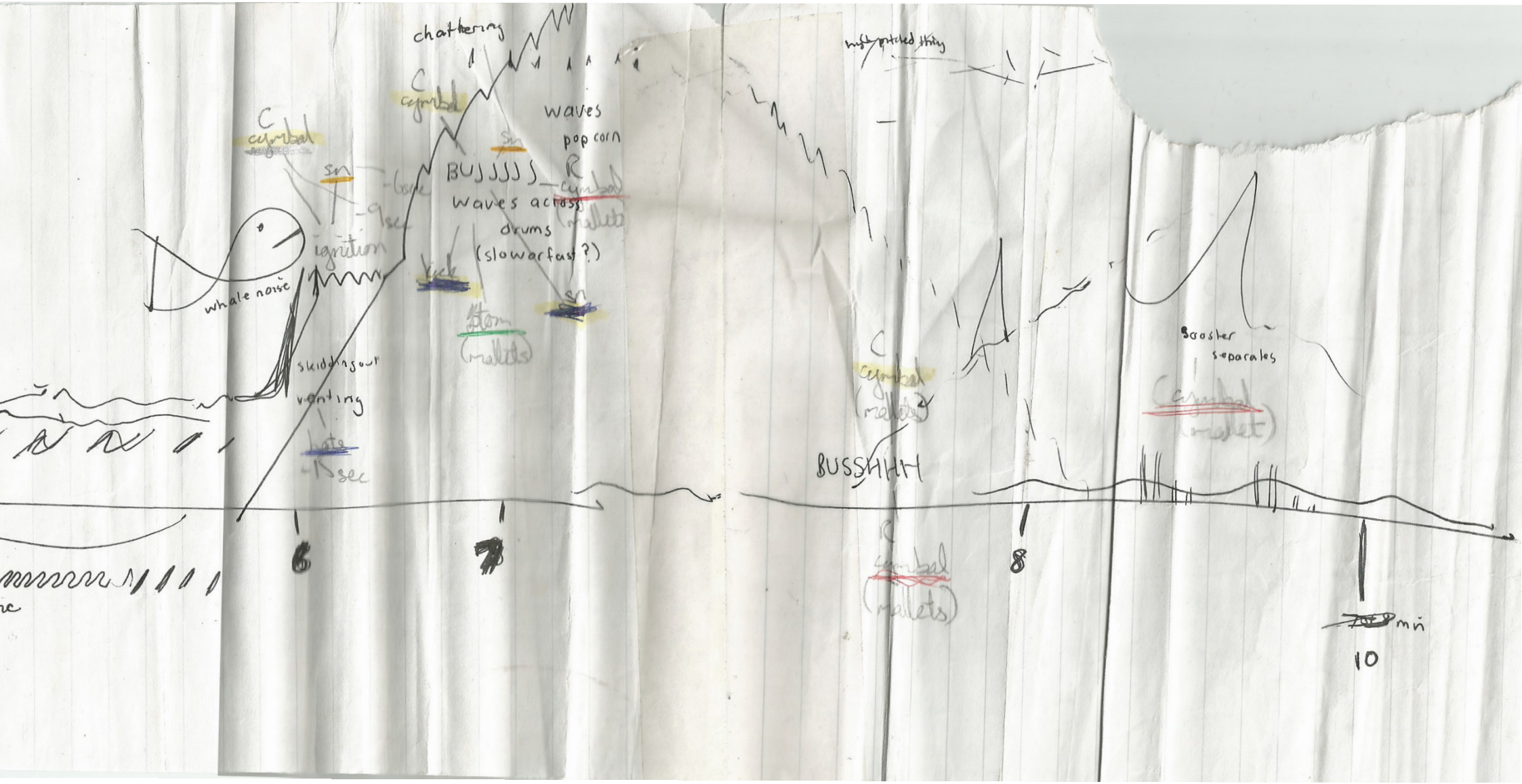
11. Edmund Gorrod, *1 2 3*, unpublished email, July 17, 2016.

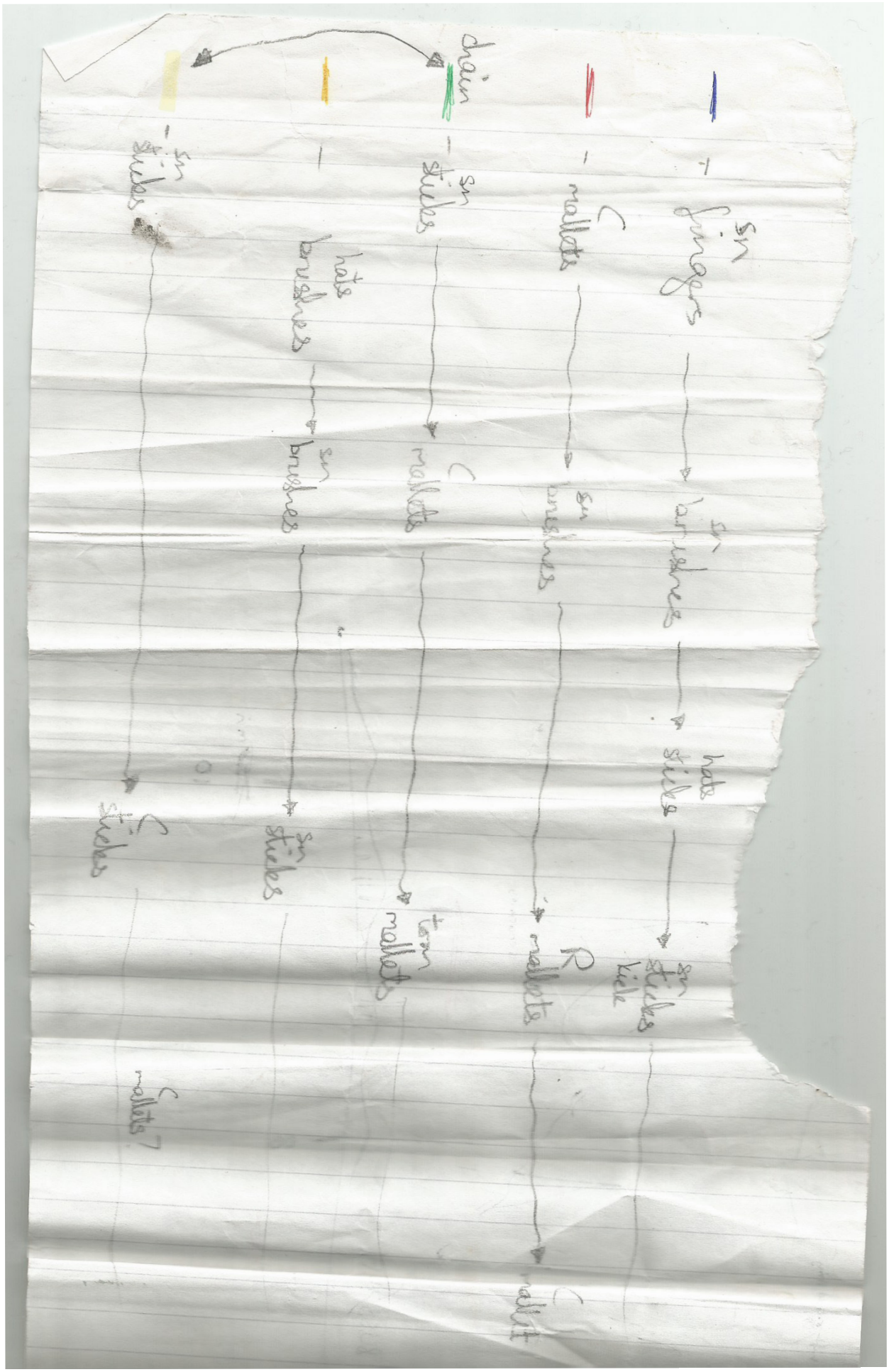
(following page spread) Fig. 15. Sarah Fortais and Edmund Gorrod, *Rocket Launch timeline*, January 14, 2014.

(p88) Fig. 16. Gorrod, "Assigning drum parts for *1 2 3 (Unfinished)*," *Five Part Drum Timeline*, Jan 30, 2014.

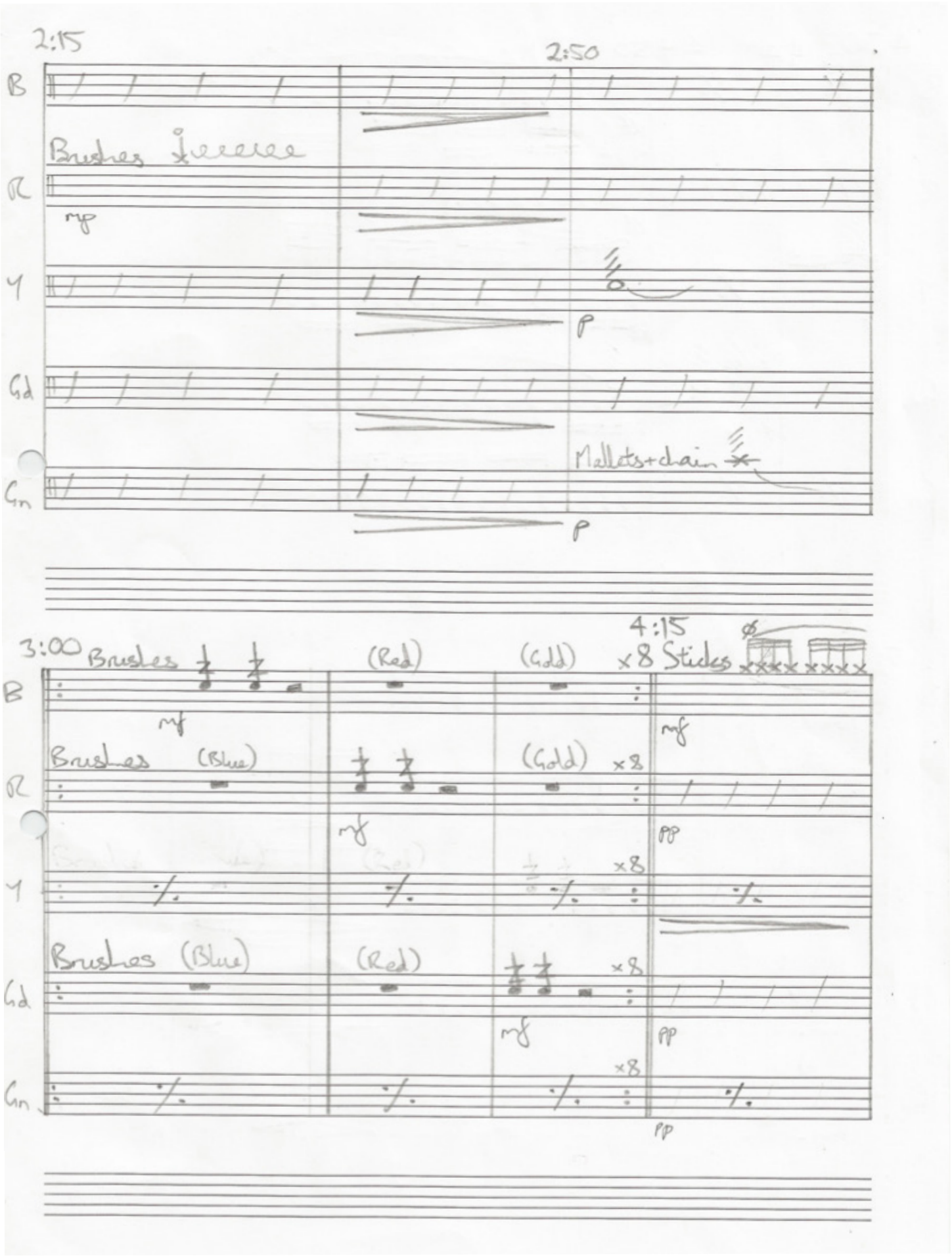
(p88-92) Fig. 17. Gorrod, *Score (musical notation)*, Feb 2, 2014.


like morse code
five one one three one two three four two
one
two
whipshap crane arm comes off
hisses
cymbal (mallets/chain)
chattering
wind
announcement
announcement echo
announcement quiet
announcement loud
wind dies down
4min
scrape
scrape
(with fingers)
(brushes)
1sec
one then two then three etc. circle up to five times
circulate
approaches
out of sync


chattering
C cymbal
waves
pop corn
sn
BUJJJJ_
R cymbal (mallets)
waves across
drums
(slowerfast?)
kick
sn
ignition
whale noise
skidding our
venting
late
-15sec
high pitched thing
C cymbal (mallets)
BUSSHHH
R cymbal (mallets)
Scooter
separates
cymbal (mallet)
6
7
8
10
min


chain
sn sticks
sn sticks
sn sticks
sn fingers
mallets
hats brushes
mallets
sn brushes
sn brushes
hats sticks
sn sticks kick
R mallets
mallets
sn sticks
sn sticks
tom mallets
mallets


Rocket
Fingers
etc
Blue
pp
Mallets
Red
pp
etc
Fingers
Yellow
pp
etc
Brushes
Gold
pp
etc
Fingers
Green
pp
etc
40sec
x5
B
R
x5
Sticks
ad lib:
mf
Y
(Green)
x5
pp
x5
Gd
(Yellow)
Sticks
ad lib:
x5
Gn
mf
pp


2:15
2:50
B
Brushes
R
mp
Y
p
Gd
Mallets+chain
Gn
p
3:00
Brushes
(Red)
(Gold)
4:15
×8
Sticks
B
mf
mf
Brushes
(Blue)
(Gold)
×8
R
mf
pp
×8
Y
Brushes
(Blue)
(Red)
×8
Gd
mf
pp
×8
Gn
pp


4:30
4:40
4:50
ad lib
mallets
Sticks
B
R
Y
Gd
Gn
5:30 ad lib
6:10
dim
mp
p


7:00
8:15
ad lib
Fine
B
R
Hd
Hn
pp

Conversation Between Sarah Fortais And Edmund Gorrod Reflecting On Creating The Score And Comments On Bricolage

Sarah: *When we listened to rocket launches I heard analogous, familiar sounds derived from many sources (popcorn, whales, and stuff), which I communicated to you, and you then turned them into drum sounds. Because we're both making a rocket launch out of not rocket launch noises I might say that we made bricolage conceptually at this point. Did you go from the rocket sounds straight to drums or did you consider the analogies I was giving you before translating into drums? Did my interpretation of the sound affect you at all?*

Edmund: *I went mostly straight from the sounds we heard to drums. The analogies helped me identify the sounds that you were talking about and wanted to recreate, but overall it was just a case of hearing the sounds that you isolated and imagining how I could recreate that on a kit.*

Sarah: *So the analogies helped to turn the noise into units that could then be translated by you but the analogies themselves did not inform the translation into drums. Even though I thought in terms of bricolage, I think then that it would be inaccurate to say that you were because if you were thinking only in terms of drums that is pure translation...*

Going from the joint timeline to the five-part timeline and musical notation that you made, you didn't really listen to anymore rocket launches after that right? So what were you doing in your head to make

it drums?

Edmund: *A few things. I was, as much as possible, writing the parts out in traditional musical notation to make it look familiar and to be clear to myself how I was going to recreate the sounds. I was also plotting the five different parts out in parallel so that I could visualise the way that the sounds made by the different parts interacted throughout the piece.*

Sarah: *I was also wondering if you learned anything about rocket launches by doing this? You know the waterfall bit now because you read my report, but anything else? Was this mainly a way of pushing your drumming somewhere 'else' and learning more about your drums? Because if that's the case, then it's kind of the opposite for me. I had research interests and was interested in rocket launches and learned about them through the drumming/materials, where you had a drum interest and ended up learning about rockets/research...*

Edmund: *For me it was mainly about drumming and doing things that I would normally never have a reason to do. Things like orchestral drumming were also an influence, which begins to push the limit of what is possible with a drum kit.*

Sarah: *So the rocket launch gave you a novel context to work within. When you translated into drums, you hadn't done some of those things before but you knew they were doable, so actually playing the score once it was designed was fun and an opportunity to do some of*

the things that you have seen your peers do but not had a chance to do yourself?

Edmund: *That's correct.*

Sarah: *I'm the opposite in that my peers do not directly inform what is possible... things like B&Q or Ebay or a construction site inform me in that regard.*

This leads into a previous discussion we had where you said that you feel the need to be confident in your materials and to be able to plan it out ahead of time (as in, you need you know how the project will be executed). With my artworks — the 'how' is always discovered in part through the act of doing. I think that's the main difference in how we go about things.[13]

13. Sarah Fortais and Edmund Gorrod, conversation taking place at 49 Willoughby Street, Nottingham, July 12, 2016.

Editing The Video: Descriptions Of The Additional Sequences

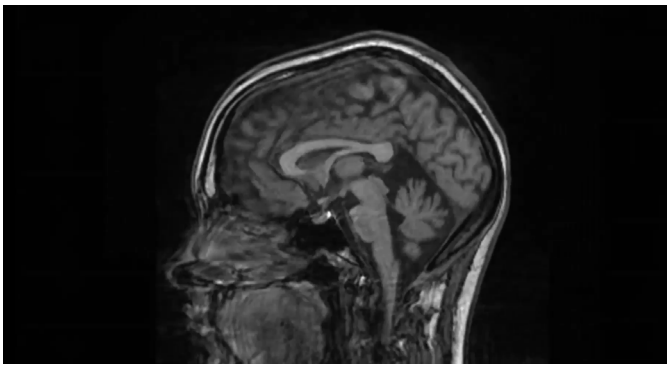


Fig. 18. MRI scans of my brain and fruit/vegetables, animated, rotating, flashing. These were animated in several patterns: pulsing singularly, 'blooming' side-by-side, and flashing erratically, all giving the impression of visually passing through them. These sequences were used to suggest how the sound might correspond to organic, physical bodies. Revealing internal structures was also used to highlight the individual mechanical and emotional processes in a rocket launch (rather than the event as a whole).

Fig. 19. Stop-motion animation of the bottoms of Portobello mushroom caps rotating. I used mushrooms because they resembled jet engines and also referenced the drumheads. After lift-off, the mushrooms shrivel, suggesting a burning up of material.

Fig. 20. Collaged footage (both my own and found) which I edited to create impossibly long library halls, stairways, and elevators, analogous to a rocket entering infinite space.

The library for me was both a brain and control centre.

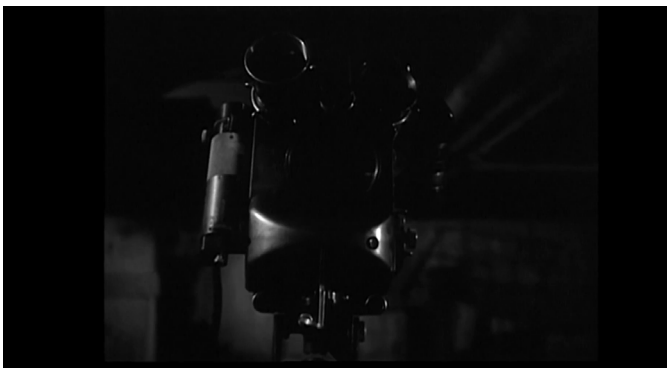


Fig. 21. Found (cropped) footage of a film camera rising up. This is a mechanical eye, included as a reversal of the performance (in which a mechanical noise is made by a musician). It also looks back at the viewer, stressing the distance created between the viewer and the performance being viewed through its documentation.

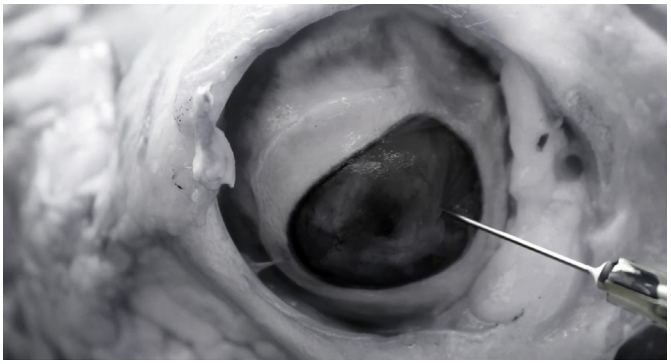


Fig. 22. A sheep eye. When the eye first appears, within its reflective surface a camera can be seen watching it. Next, the eye is injected with a syringe and enlarges. Third, a finger moves in front of the eye in a sort of cutting motion. Milliseconds before lift-off, the eye is sliced with a scalpel and the liquid runs out. The eye is finally shown deflated and lifeless. The augmentation of the delicate tissue with cold, mechanical instruments simulates the controlled but violent movements of the musician striking the drum kit and the volatile chemical reaction of rocket ignition. At stake in this sequence is the fate of the eye, a biological material, which poignantly introduces a tension wrought by corporeal vulnerability.

Fig. 18-22. "Stills from my video *1 2 3 (Unfinished)*," *1 2 3 (Unfinished),* 2014.

Fig. 23. "Rocket Launch performance poster (Part 3 of *1 2 3 (Unfinished)*)," *1 2 3 (Unfinished)*, 2014.

The Evolution Of The Space Capsule For *1 2 3 (Unfinished)*

In 2011 I began to build a coffin inspired by the mirrored iron maiden in the rock opera *Tommy* (Fig. 24.). I collected broken mirrors and cut them into tiles but grew complacent with the project because it served no purpose beyond achieving the end result. The coffin was in conceptual limbo until 2013 when I then created a plan to turn it into a funkadelic instrument that an oboist and I could perform within (Fig. 25.). Eventually however, I felt that even though the coffin inspired this project that it was not actually a good idea to use the coffin to execute it.

Later that year, I turned the coffin into a space capsule as it became one of my several rocket attempts in *Sarah Fortais' Summer Space Program* (2013) (Fig. 26.). I took the concept of a rocket and broke it down into a bunch of basic elements (flight, storage, fuel, oxygen, food, communication technology, etc.) and then tried to simulate these individual elements (Fig. 27-39.). The attempts were feeble but each one captured one aspect of a rocket launch. With my low profile experiments in *Sarah Fortais' Summer Space Program*, the space capsule became a familiar part of my practice, which in turn made me confident enough to deploy it into another environment. A few months after *Sarah Fortais' Summer Space Program*, I entered the Slade Research Centre for the first time and immediately got the idea to create *1 2 3 (Unfinished)*. I repainted the space capsule and used it in the artwork.

To conclude, the coffin, now space capsule, was initially conceived as a copy of something else but instinctively I moved away from this, now realising that this is because a copy must hide its process and I value process above the end result.

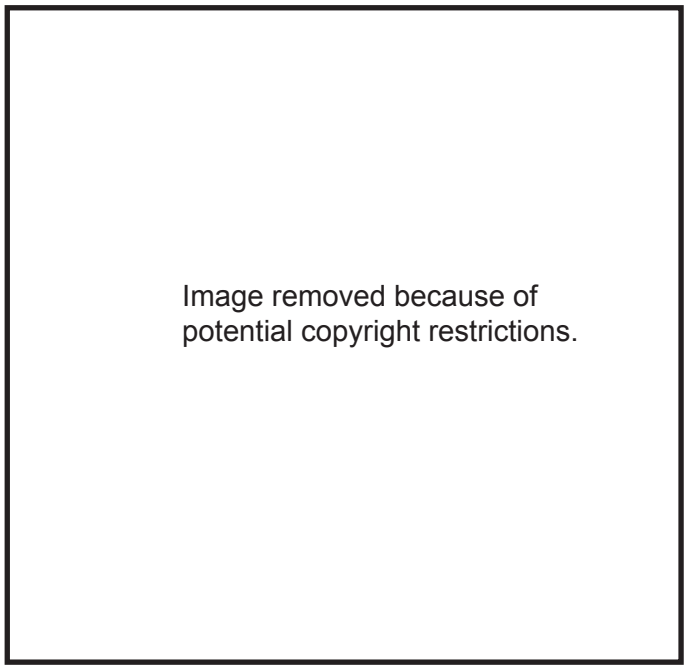


Fig. 24. *Tommy,* Film, dir. Ken Russell, prod. Kit Lambert, United Kingdom: Herndale, March 26, 1975.
Screenshot showing Iron Maiden from *Tommy*.

Fig. 25. *My proposal for the funkadelic mothership*, 2013.

(right) Fig. 26. "Overview of installation," *Sarah Fortais' Summer Space Program*, mixed media sculptures, London: Chelsea College of Arts, 2013.

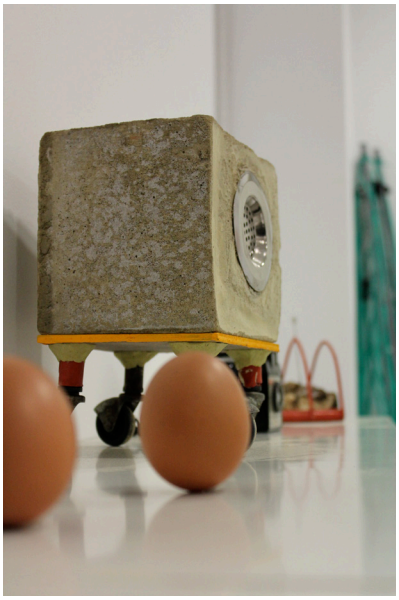


Fig. 27-32. "Rocket attempts," *Sarah Fortais' Summer Space Program*, 2013.

Fig. 33-39. "Rocket attempts," *Sarah Fortais' Summer Space Program*, 2013.

APPENDIX F

Lunar Salon (2015)

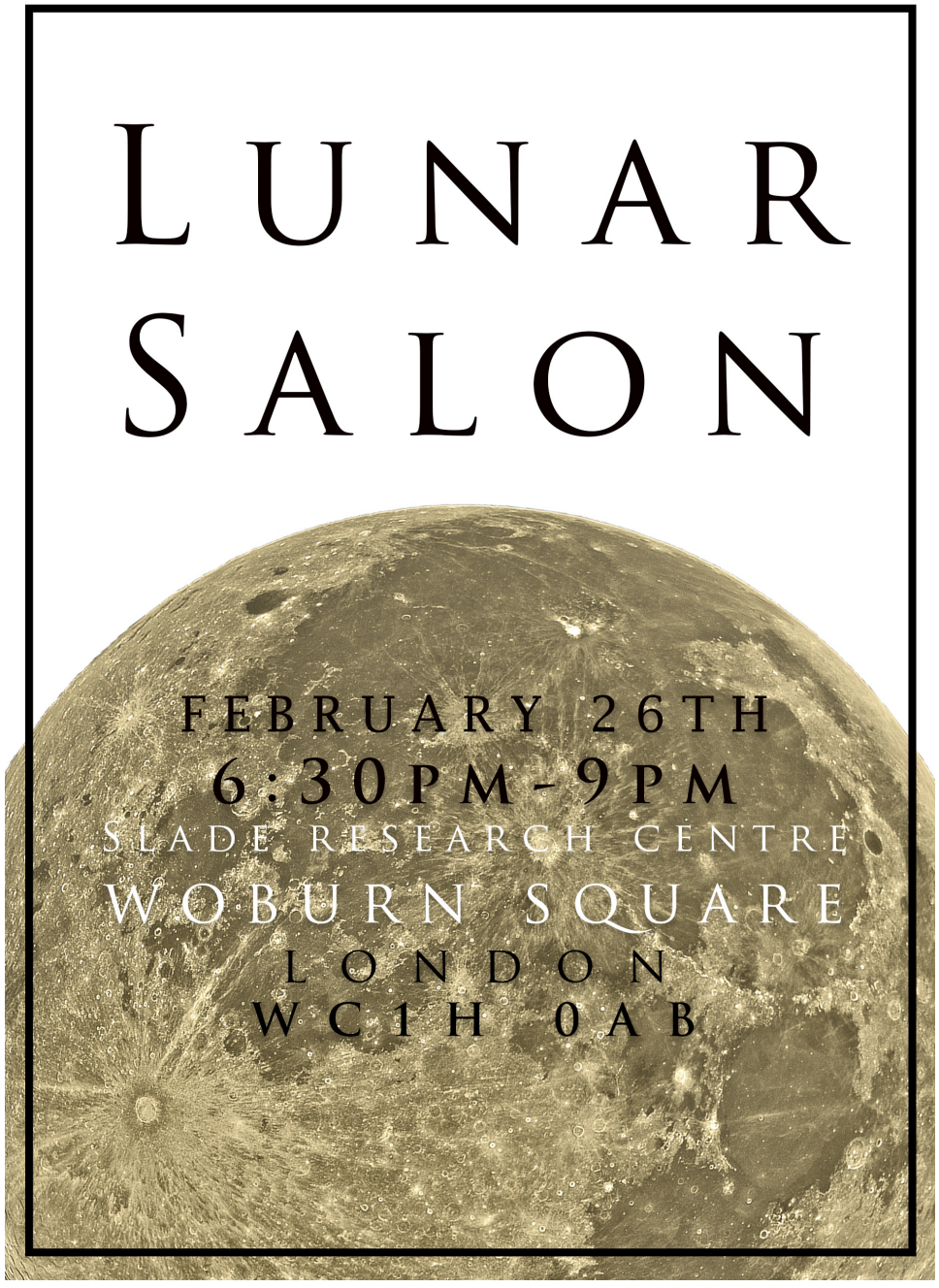
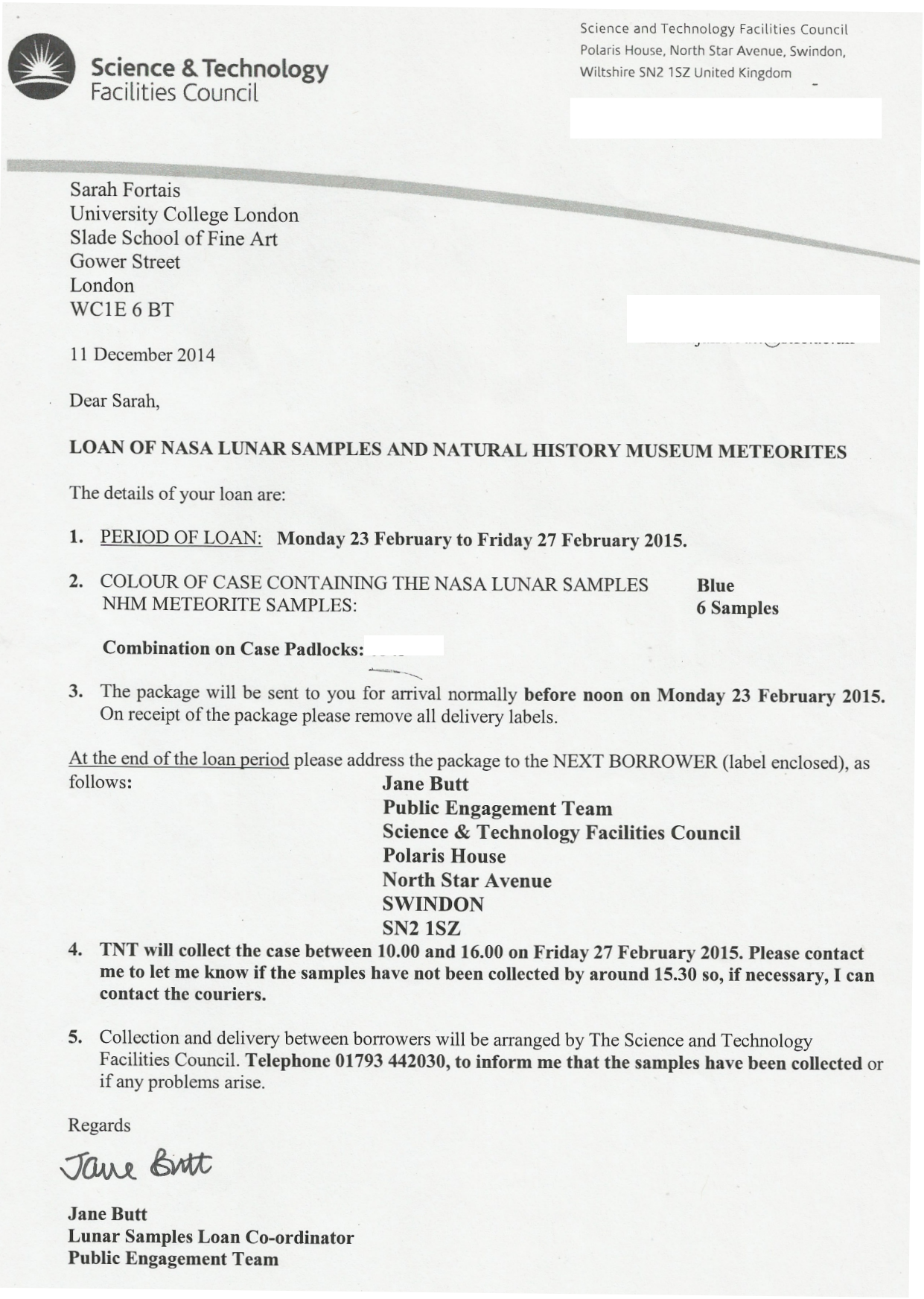


Fig. 40. "Sample invitation," *Lunar Salon*, event, London: Slade Research Centre, 2015.



Science & Technology Facilities Council

Science and Technology Facilities Council
Polaris House, North Star Avenue, Swindon,
Wiltshire SN2 1SZ United Kingdom

Sarah Fortais
University College London
Slade School of Fine Art
Gower Street
London
WC1E 6 BT

11 December 2014

Dear Sarah,

LOAN OF NASA LUNAR SAMPLES AND NATURAL HISTORY MUSEUM METEORITES

The details of your loan are:

1. PERIOD OF LOAN: **Monday 23 February to Friday 27 February 2015.**

2. COLOUR OF CASE CONTAINING THE NASA LUNAR SAMPLES **Blue**
   NHM METEORITE SAMPLES: **6 Samples**

   Combination on Case Padlocks:

3. The package will be sent to you for arrival normally **before noon on Monday 23 February 2015.** On receipt of the package please remove all delivery labels.

At the end of the loan period please address the package to the NEXT BORROWER (label enclosed), as follows:

Jane Butt
Public Engagement Team
Science & Technology Facilities Council
Polaris House
North Star Avenue
SWINDON
SN2 1SZ

4. **TNT will collect the case between 10.00 and 16.00 on Friday 27 February 2015. Please contact me to let me know if the samples have not been collected by around 15.30 so, if necessary, I can contact the couriers.**

5. Collection and delivery between borrowers will be arranged by The Science and Technology Facilities Council. **Telephone 01793 442030, to inform me that the samples have been collected** or if any problems arise.

Regards

Jane Butt

Jane Butt
Lunar Samples Loan Co-ordinator
Public Engagement Team

Fig. 41. Jane Butt to Sarah Fortais, LOAN OF NASA LUNAR SAMPLES AND NATURAL HISTORY MUSEUM METEORITES, Swindon, December 11, 2014.
Letter indicating my approval for a loan of NASA lunar samples and Natural History Museum meteorites.

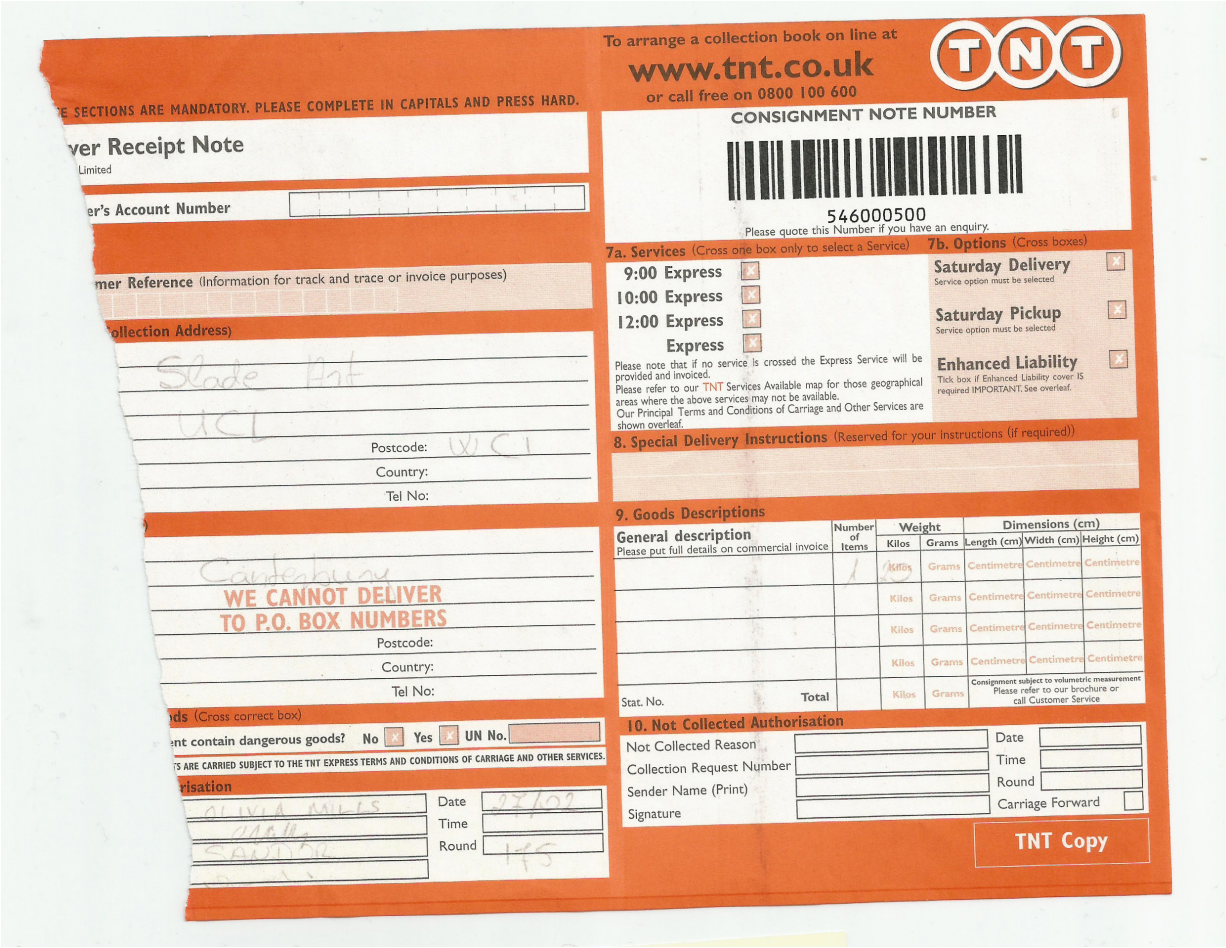
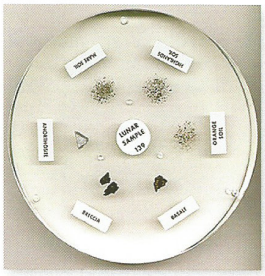


Fig. 42. TNT. "Receipt for the moon rocks," 2015.

Loan Kit Contents

NASA Moon Rocks Disc

Basalt	Solidified lava found in the dark lowland maria or 'seas'.
Breccia	Rocks made of fragments of other rocks created in violent impacts.
Highland Soil (Regolith)	Fragments from the breakup of highlands rocks by meteorites.
Anorthosite	White rock consisting of feldspar crystals. Predominant rock of the lunar highlands.
Mare Soil (Regolith)	Fragments from the breakup of mare rocks by meteorites.
Orange Soil	Volcanic glass beads from a lunar eruption 3.5 billion years ago. Found by Apollo 17.



Natural History Museum Mounted Meteorites

MURCHISON

Carbonaceous Chondrite
Observed Fall in Australia 1969
Total mass collected >100 kg
Murchison is an unmelted meteorite rich in organic molecules. Meteorites like this one could have seeded the early Earth with the chemical building blocks needed for life.

CAMEL DONGA

Achondrite
Found in Australia 1984
Total mass collected >2 kg
Camel Donga is a basalt similar to volcanic rocks on Earth. This indicates that the parent body from which it came underwent igneous geological processing similar to that on Earth.

NAKHLA

Achondrite
Observed Fall in Egypt 1911
Total mass collected >10 kg
Nakhla is a meteorite that came from Mars and shows evidence of aqueous processes.
A farmer claimed that a piece hit his dog.

(above) Fig. 43. "Documentaiton of Lunar Loan contents," *Lunar Salon*, 2015.

Hand-held Meteorites

Henbury This is part of the Henbury iron meteorite that is made of an alloy of iron and nickel. One face of the meteorite has been cut and polished, to reveal the crystalline patterns of the two metallic minerals, kamacite and taenite, which formed in the slowly cooling core of an asteroid. To end up on Earth the asteroid must have undergone a catastrophic impact. The surface depressions called regmaglypts were caused by pockets of superheated air melting and vaporising the metal on entry into our atmosphere.

Parnallee This is an unmelted stony meteorite, or chondrite. It is part of the Parnallee meteorite that fell in India in 1857. The cut faces show small, round objects called chondrules. These are solidified droplets of silicate minerals that were produced during the very earliest stages of the formation of the Solar System. They are up to 150 million years older than the Earth. Chondrites never became part of objects that were large enough to differentiate into a core and mantle.

Imilac This is a stony iron pallasite formed at the core-mantle boundary of a large asteroid. It shows a snapshot of the process of differentiation of olivine crystallising in a matrix of iron and nickel at the core-mantle boundary. Henbury came from deeper inside a metallic core where no olivine was present. In small samples the olivine is often weathered away. The front cover of the *Meteorites* book has a spectacular picture of a pallasite. Like Henbury, a massive impact event would have blasted these fragments into space.

(left) Fig. 44. Science & Technology Facilities Council, "Lunar Loan Kit Contents," *Lunar Samples and Meteorites Planning Pack and Support Notes,* ©STFC, Swindon, [n.d.], p3-4.

Select Excerpts From *Lunar Salon* Conversations

I.

Martin: *It's hard to engage with* [the moon rocks]. *Maybe the problem was that you needed to engage with them through another material, through painting or something, because they are so protected and you are limited in what you are allowed to do with them.*

The problem is that it's a dream material. And what do you do with it now? Displaying it… it's not interesting in the way it's [literally] *displayed. There's this whole emotional display that is more significant to the project. The way of displaying* [the giraffe skull] *should be quite interesting in the final project.*

Sarah: *The goal was really to get the rocks here. There was little thought as to what to do with them once I got them, only because it was so hard to get them and … I just kind of wanted them. It's weird not knowing what to do with a thing. Maybe that's why I keep some of these projects ongoing.*

Martin: *In some way it's less genuine than a spacesuit for yourself. There is an association… it's impressive, the giraffe is quite vertical. There is matter from over there which is brought back here, but you are making the gesture that it was from here already. The far to the close, this works in an efficient manner in this room and it gets around being very impressive. I find it very interesting … the far and the close.*

Sarah: *There's something quite relatable.*

Martin: *The animals on the moon I first thought could be something bad. …Gives the impression of reaching out, to get somewhere else. But then in your spacesuit, I see you on the street with your suitcase of garbage and I recognise that it's you. There is something quite funny about that, something very far but then up close you realise it was always quite near.*

Sarah: [explains the Overview Effect][1]

II. (conversation taking place outside *Lunar Salon*)

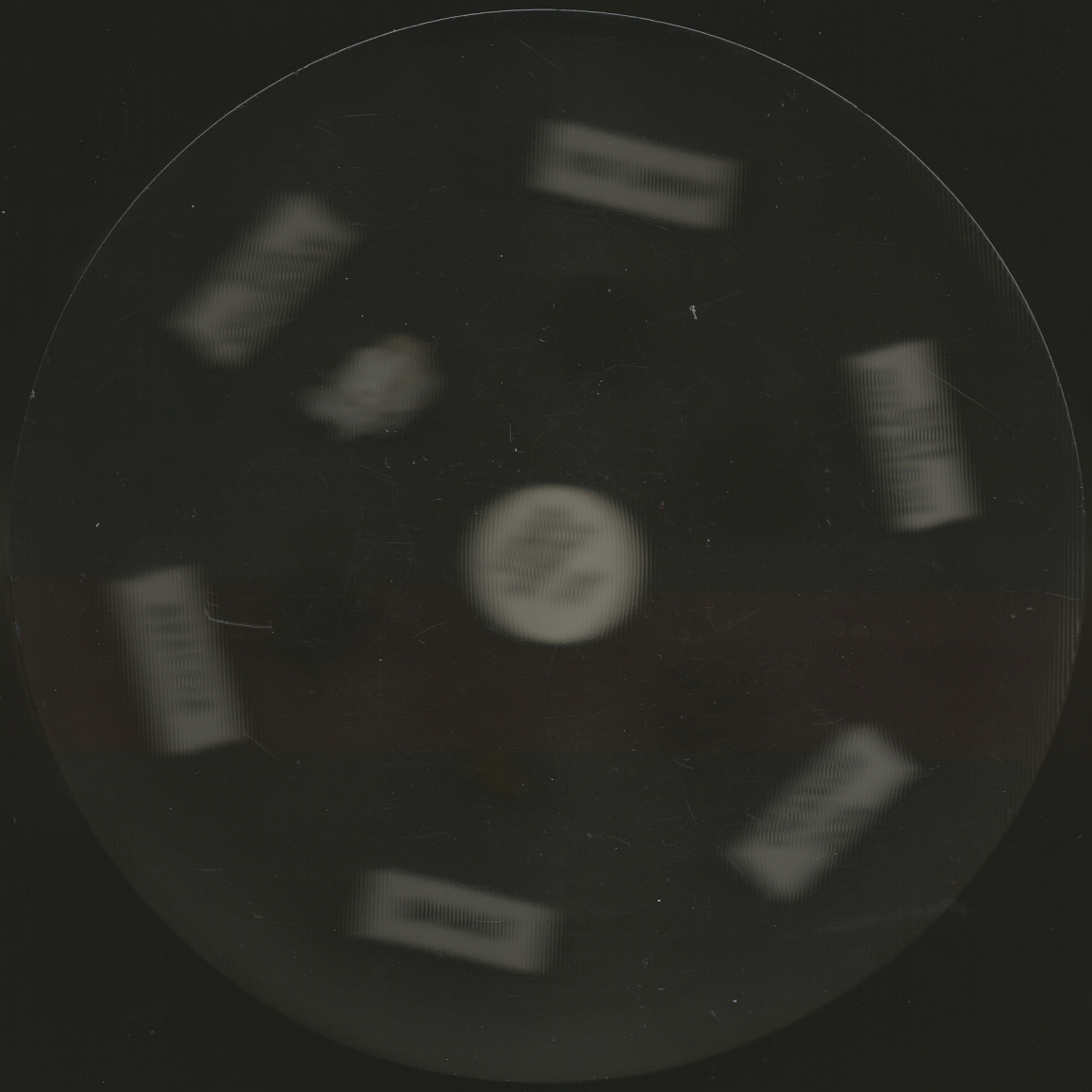
Naomi: *I still find it really incredibly exciting that that was pieces of the moon there.*

Doug: *I felt the opposite. I actually found the moon felt really underwhelming, which brings it back to imaginary space. I make work about the moon, I think about the moon, I love the moon. I love it. I thought oh wow, yeah when you bring it down here it doesn't make the same sense. Because all the stuff that surrounded us has come from space at some point but it was really fascinating for that reason, for the way you talk about the democratising of objects. The* [moon rocks] *were the reason we all came. I was excited by the prospect and then I was pleasingly underwhelmed, like you can't bring it down. It*

1. Sarah Fortais and Martin Guinard Terrin in conversation during *Lunar Salon*, Slade Research Centre, University College London, England, February 26, 2015.

has to exist just in the imagination.[2]

2. Naomi Siderfin and Douglas White, conversation reflecting on the *Lunar Salon*, Slade Research Centre, University College London, England, February 26, 2015.



(left) Fig. 45. *scan of lunar sample disk*, 2015.
The shallow depth of field on the scanner has captured the surface of the disk (and a few particles on the scanning bed itself).

APPENDIX G

spacesuits for animals (2016-ongoing)

Seduction/Defamiliarization

To seduce means to divert from one's path, lure, entice, intrigue, or to lead one astray through fascination, charm, or manipulation.[1] Jean Baudrillard characterises seduction as having no depth. Seduction, he says, is a superficial strategy or game of appearances (and surfaces) which distracts, fascinates, and exhausts a viewer.[2] As a game of surfaces, he characterises seduction as the least critical mode of engagement. 'Engaging' in seduction (by way of perception) is to not engage at all: the seduciere possesses the power in the exchange and reveals simply that nothing will be revealed, for there is nothing to reveal.[3]

Seduction seems to directly oppose interpretation (the search for hidden meanings) and the related mode of mimesis (trying to seek meaning through recognition, seeing resemblances, the capacity to decipher patterns, and imitation).[4] Interpretation and mimesis, according to Neil Leach, are, "bound up with discovering and unfolding meaning lodged within the seemingly chaotic, disparate, daemonic world of nature".[5] Interpretation, "neglects and destroys" the, "charm and illusion of appearances"[6] and subsequently enables one to make things coherent, and eventually, familiar. Leach suggests that interpretation can paradoxically, "err in its initial denial of seduction" because it prematurely forces the invention of sense despite the possibility that there may be none: a deception of depth obscuring the presence of the ludic.[7]

---

1. Neil Leach, "Benjamin's London, Baudrillard's Venice," *Hieroglyphics of Space: Reading and Experiencing the Modern Metropolis*, London: Routledge, 2002, p49.
2. Baudrillard, "On Seduction," *Selected Writings*, ed. Mark Poster, Cambridge: Polity, 2001, p161.
3. Leach, *Hieroglyphics of Space...,* p47.
4. Ibid., p6.
5. Ibid., p44.
6. Jean Baudrillard, *Seduction*, Trans. Brian Singer, Montreal: New World Perspectives, CultureTexts Series, 1990, p53.
7. Leach, *Hieroglyphics of Space...,* p51.

Defamiliarization, a linguistic term posited by Viktor Shklovsky, in *Art as Device*, is the process of, "enstranging objects and complicating form" with the belief that "the perceptual process of art has a purpose all its own and ought to be extended to the fullest."[8] In language, this is achieved through the rich use of metaphor, simile, and other figures of speech. In bricolage, I similarly argue that the displacement and/or re-use of objects may facilitate an extraction of the object from the, "domain of automatized perception", rendering the object unfamiliar.[9] This unfamiliarity 'complicates' our perceptual process, and leads to an elongated form of perception. However, because defamiliarization, like bricolage, makes use of things already located within the world, there is also a degree of instant and uncontrollable cognitive awareness (knowing) that facilitates recognition of these objects and triggers partial memories that inform their contexts.[10] In this way, by being seduced into prolonged perception, vision is elevated to a point which allows one, "to see beyond the literalness of the observed"[11] and move to a deeper level of experience that then fuels further seduction through interpretation. Thus, I argue that seduction and interpretation can work together through a cycle of dredging, where each cycle reaches a deeper level of understanding as it generates knowledge. If seduction is a game, then experiencing seduction means one is also playing: the seduciere may initially possess the power in the exchange but when perception becomes elongated it can become a highly useful creative tool and form of agency.

8. Shklovsky, *Theory of Prose*, p6.

9. Ibid., p12.

10. "Everyday material – any material that makes up the fabric of our lives, even one as common as Kleenex – would, when attention was focused on it, "Push into relief all that we have only half consciously thought about [it] and its intimate uses."" Alex Potts, "Writing the Happening: the Aesthetics of Non-Art," *Allan Kaprow: Art as Life*, Ed. Eva Meyer-Harmann, Andrew Perchuk, and Stephanie Rosenthal, Los Angeles: Getty Research Institute, 2008, p24. Potts quoting Allan Kaprow, *Assemblages, Environments and Happenings*, New York: Harry N. Abrams, 1955, p201.

11. Joe. L. Kincheloe, "Describing the Bricolage: Conceptualizing a New Rigor in Qualitative Research," Qualitative Inquiry, Volume 7 Number 6, New York: Sage, 2001.

Pursuing the 'elongation of perception' through defamiliarization is to value the aesthetic intensity of seduction, which can read as exclusively superficial. However, I think there is more to this. I become seduced by a cool thing's surface. This surface, or mask, is the interface between inner and outer, the fusing of different processes, and the only part of cool that is observable. With cool (unlike glamour) I am not actively manipulated or lured — I am diverted from my path because I choose to evaluate what I am experiencing. The seduction of that which is cool prolongs my perception and can ultimately become pedagogical in a similar way to how defamiliarization brings out certain fundamental properties which are normally latent in the object.

Trying to understand what it feels like to experience seduction or what it enables me to produce is different than searching for knowledge within seduction itself (which Baudrillad warns is a trap and would offer no answers[12]). Trying to understand what it feels like to experience seduction or what it enables me to produce can still value the intensity of experiencing seduction, but can also generate understanding of cool as a creative methodology.

Seduction is closely related to the sensibility of **desire**, but **desire** can also be aspirational. Seduction is, "the delight in the futility of reading"[13] which allows me to tolerate and play with ambiguity (tolerating wrongness), which is one expression of the sensibility of **nonchalance**.

12. Baudrillard, "*Selected Writings*," p150.

13. Leach, *Hieroglyphics of Space...*, p52.
"What destroys people, wears them down, is the meaning they give to [the seductress'] acts. But the seductress does not attach any meaning to what she does, nor suffer the weight of desire." Baudrillard, *Seduction*, p87.

Giraffe

The word giraffe comes from the Arabic *zarāfa*, which as a noun means 'one who walks swiftly' and as a verb means, 'to jump' or 'to hurry'.[14]

> *The colossal height, and apparent disproportions of this extraordinary animal, long classed it with the unicorn and the sphinx of the ancients, and induced a belief that it belonged rather to the group of chimeras with which the regions of imagination are tenanted, than existed amongst the actual works of nature.*[15]

The word giraffe,

> [...] *has also been traced to an Ethiopic word that denotes "graceful one." But its primary derivation, in the opinion of a linguistic authority, stems from a source meaning "assemblage," as in assemblage of animals.*[16]

The ancient Greek writer Heliodorus described a giraffe as:

> [...] *a marvelous animal of extraordinary appearance. His size was about that of a camel; his skin like that of a leopard, was decorated with spots in a floral pattern. His hindquarters and belly were low and*

14. Lynn Sherr, *Tall Blondes: A Book About Giraffes*, Kansas City: Andrews McMeel Publishing, 1997. p16.

15. Sir William Cornwallis Harris, *The wild sports of Southern Africa*, 4th ed., London: Pelham Richardson, 1844, p199, https://hdl.handle.net/2027/nyp.33433066602693 .

16. Sherr, *Tall Blondes*, p16.
Pliny the Elder in first century A.D. said the giraffe had a, "neck like a horse, feet and legs like an ox and a head like a camel". Pliny, *Natural History*, vol. 3, book 8, Trans. H. Rackham, Loeb Classical Library 330, Cambridge, Massachusetts: Harvard University Press, 1938, p53, doi: 10.4159/DLCL.pliny_elder-natural_history.1938 .

> *like a lion's; the shoulders, forefeet and chest were of a height out of all proportion to the other members. The neck was slender, and tapered from the large body to a swanlike throat. The head was shaped like a camel's and was almost twice as large as that of a Libyan ostrich.*[17]

If a giraffe is to be considered a chimera it is because it is perceived to be an impossible combination of animal features. At first I considered this chimerism to be a kind of biological bricolage but in biology a foot is still a foot and a head a head and in bricolage, this is not necessarily the case. This is perhaps what gives giraffes elegance, which is something that characteristically eludes bricolage.

A giraffe is a walking contradiction straddling reality and mythology, the graceful and the absurd. On one hand the giraffe has poise, is powerful, and when galloping, has even been described as elegant. However, the giraffe's neck is too short to reach the ground. As a result, it has to splay its legs precariously or bend onto its padded knees to drink (Fig. 46.). If a pack of lions are able to kill a giraffe, it will almost exclusively be when it is in this compromised position.[18]

Getting up is similarly awkward.

17. Heliodorus, *An Ethiopian Romance*, Trans. Moses Hadas, Philadelphia: University of Pennsylvania Press, 1957, p265.

18. Sherr, *Tall Blondes*, 60-61.

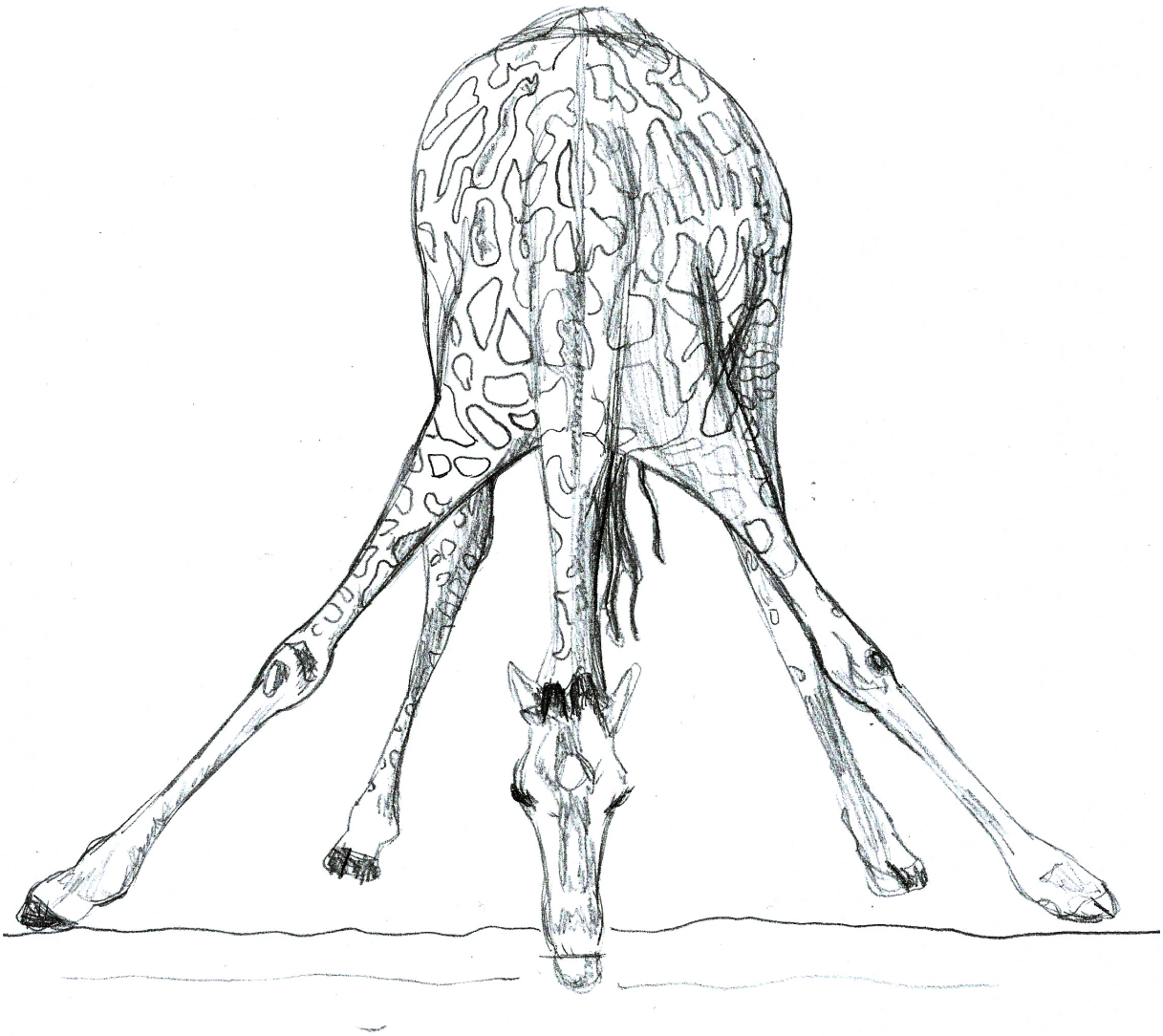


Fig. 46. *A giraffe drinking water*, pencil drawing on A4 printer paper, 2017. Drawn from detail of a digital photograph titled: "Thirsty Giraffes, Etosha National Park Namibia," *Fansshare*, [n.d.], http://german.fansshare.com/gallery/photos/13805011/thirsty-giraffes-etosha-national-park-namibia/?displaying .

Materials Lists for *spacesuits for animals* (October 2016)

Russell (2016-ongoing)
leather jackets, mattress box, pallet wood, horse boots, cricket pads, parachute bag, parachute cord, leather glove, curtains, plumbing, hockey pads, tent, tire covers, umpire's chest plate, ducting, ducting reducers, golf bags, twine, nylon rope, packing tape, plastic bags, bubble wrap, saddle, rubber coated wire, running shoes, zippers, grommets, Velcro, Giraffe skull, Thermofoam plastic, gold-coloured 1-way mirror film, Thermoses, solar powered lights, jubilee clips, webbing, metal fixings, Gorilla glue, superglue, hot glue, electrical tape, concrete, newspaper, and rolled steel

Stag (2016-ongoing)
French military parachute bag, deer skull, coat hanger, piano key mechanism, Skull Hooker, plastic bags, newspaper, curtains, golf bags, shin guard, elbow pads, ski bag, ducting, boots, running shoes, children's booties, bike tire, reflective sports bands, leather jackets, horse ankle guards/shin guards, bed post, CD rack, plastic tubes, cement, rock wool, film splicing tape, packing tape, grommets/eyelets/metal fixings, nylon/leather/cotton/polyester-nylon rope, parachute cord, particle board trolley, Gorilla glue

L.A.M. (2016-ongoing)
baby shoes, motorcycle helmet, curtains, cob boots and leg protectors, grommets, cotton string, duct tape, cardboard tubing, plastic bags, stones, leather jacket, lamb skull, hair curlers, safety pins, packing tape

Lamb (2016-ongoing)
baby shoes, curtains, grommets, cotton string, duct tape, cardboard tubing, plastic bags, stones, leather jacket, lamb skull, hair curlers, safety pins, packing tape, tensor bandages

Sheep (2016-ongoing)
sheep skull, plastic tubing, cardboard tubing, saran wrap, plastic bags, packing tape, newspaper, metal fixings, duct tape, hair curlers, hazard tape, tree branch, cement, metal fixings

Mouse (2016-ongoing)
mouse skull, leather key chain, champagne cork cage, copper wire, fabric coated wire, zinc alloy bead, cotton, thread, found metal objects

Mink (2016-ongoing)
aluminum, mink skull

Ostrich (2016-ongoing)
resin cast ostrich skull, PVC pipe, camera tripod, packing tape, leather jacket, rubberised wire, plastic bags, newspaper, plastic cloche

Taxidermy

In its most basic principle, taxidermy is the art of preserving an animal's skin over some kind or armature or padding, which can be done for any number of purposes including (but not limited to) research, education, record-keeping, and decoration. Although skin preservation and embalming practices have existed for thousands of years, it is likely that the art of taxidermy began,"in England towards the end of the seventeenth century, as is proved by the Sloane collection, which in 1725 formed the nucleus of the collection of natural history now lodged in the galleries at South Kensington."[19]

I have trained as a taxidermist under Sally Adams, who works at the Natural History Museum in Edinburgh. Adams additionally works on commission, completing numerous works for artist Polly Morgan. Prior to this training, I taught myself how to preserve small mammals while living in Canada using a variety of improvised methods. With these experiences, I personally understand taxidermy to roughly fit into two different approaches:

The first approach consists of: 'life mounts' (a complete taxidermied animal placed into a fabricated environment, Fig. 47.); 'basic mounts' (just a head or isolated body part, Fig. 48.); and 'study skins' (compact museum storage mounts that are occasionally re-moistened and mounted in a more lifelike fashion, Fig. 49.). Life mounts, basic, mounts, and study skins make up the first approach to taxidermy because they all tend to value both accuracy and proper preservation, aiming to keep the mount as close to nature as possible. That being said, historically, taxider-

19. The Encyclopedia Britannica, s.v. "Taxidermy," 11th ed., Vol xxvi, Cambridge: Cambridge University Press, 1911, p464, https://ia800306.us.archive.org/6/items/encyclopediabrit26ed11arch/encyclopediabrit26ed11arch.pdf .

my, "had no definite rules, but left almost everything to the fancy of the "stuffer"."[20] Mounts such as the Overstuffed Walrus (Fig. 50. and compare with Fig. 51.), or the Lion of Gripsholm Castle (Fig. 52. and compare with Fig. 53.) despite attempting to be life mounts, appear to be, "glaringly artificial productions, devoid of all the grace and beautifully turned points of living nature."[21] This is because it was historically common (particularly with non-native species) for a taxidermist to be presented with the body of an animal that they had never seen in life, or worse, just the skin and a description. As such, the animal's skin could easily become transformed into something completely...wrong. Even with the current ability to consult photographic or 3D reference material, it is easy to misrepresent animals with the wrong measurements or proportions, or pose them unnaturally (Fig. 54.). Ultimately, I have become hung up on the notion of taxidermy as *representation*, and feel that even the best mount refers to a missing whole and points to a kind of absence.

The second approach to taxidermy is not interested in mimicry or accuracy and takes a more imaginative and/or non-representational approach to creating mounts. Examples include the 'fur-bearing trout' (Fig. 55.), 'Jackalopes' (Fig. 56.), Walter Potter's anthropromorphised *Rabbits' Village School* (1888) (Fig. 57.), and Robert Rauschenberg's *Canyon* (1959) (Fig. 58.). In these, "deployments of taxidermy [...] it is arrangement itself, the taxidermic dispositif, that is on show: art upstages taxidermy."[22] In essence, this approach, which ranges from novelty, to *kitsch*, to

20. Montagu Browne, *Artistic and Scientific Taxidermy And Modelling: A Manual of Instruction In The Methods of Preserving And Reproducing The Correct Form of All Natural Objects Including A Chapter On The Modelling of Foliage*, London: Adam and Charles Black, 1896, p4-5.
Browne was a F.G.S. (Fellow of Geological Society), F.Z.S. (Fellow of Zoological Society), and former curator of the Leicester Corporation Museum and Art Gallery.

Taxidermists commonly prefer the verb 'mount' rather than 'stuff' and so I think that Browne is stressing the amateur nature of taxidermy practice at this time with his use of the term 'stuffer'.

21. Captain Thomas Brown, *The Taxidermist's Manual*, 11th ed., London, Edinburgh, and Dublin: A Fullarton and Co., 1853, p3.
Brown was the conservator of the Manchester Museum of Natural History and President of the Royal Physical Society.

22. Steven Connor, *Such Stuff As Dreams Are Made On*, 2017, http://stevenconnor.com/stuff.

fine art works, uses animals as material to achieve something other than recreating nature. This approach becomes problematic for me with respect to building *space-suits for animals* because the taxidermied animal can become forced to transform into a symbolic material and thus might no longer be experienced as an animal.

Building a spacesuit over taxidermy, which is built over an armature would to me feel like a superfluous act of covering. Steven Connor notes that this kind of activity can quickly digresses into a, "comic attempt at reparation"[23] and cites artist Louise Weaver's *Invisible Bird* (1997) as an example. *Invisible Bird* (Fig. 59.) consists of a taxidermied Hoopoe bird covered with crocheted cotton thread, white sequins, and glass beads in order to, "provide it with camouflage in its new white gallery habitat."[24] This artwork along with other similarly clad birds is an attempt to restore, "something of the possibility of withdrawing from sight that traditions of display brutally deny."[25] Connor describes Elaine Bradford's *Untitled (Peas and Carrots)* (2006, see Fig. 60.) as similarly, "otiose"[26] as it covers an entire taxidermied deer head with form-fitting striped crochet, complete with buttons and winding antler extensions. With my artwork *spacesuits for animals*, I believe that taxidermy could make the spacesuits otiose whereas I want them to be integral.

Taxidermy tries to make something dead lifelike, and frequently, the results can be horrifying. I have used the image of the zombie to represent trend in my report and I also think that both the zombie and trend bear relationships to taxidermy. Taxidermy, like trend, exemplifies the difficulty of trying to hold onto something

html . Connor notes that an expanded version of this essay is published as 'The Right Stuff," *Modern Painters,* March 2009, Louise Blouin Media, p58-63.

23. Connor, *Such Stuff As Dreams...*

24. Rachel Kent and Louise Weaver, "Louise Weaver in Conversation With Rachel Kent," *Art and Australia*, 44.3, 2007, p412-13, https://www.artandfoundation.com/projects/artand-foundation/art-australia-magazine-404-522 . Cited by Connor, *Such Stuff As Dreams...*

25. Ibid.

26. Connor, *Such Stuff As Dreams...*

and preserve it, and how this desire destroys that which made the thing valuable (or cool) in the first place. And metaphors aside, I have also noticed that taxidermy itself has recently (over the last ten years or so) become trendy in England and North America.

> *Companies like Alexis Turner's* London Taxidermy *will sell or rent you a stuffed giraffe, elephant or zebra. There's also* Get Stuffed*, an independent taxidermy boutique in London's Islington neighbourhood, which specializes in mounting on a smaller scale.*[27]

I have decided in *spacesuits for animals* to incorporate taxidermic methods to build the animals but to exclude actual taxidermy in order to distance my work from contemporary taxidermic discourse, which I believe can distract a viewers' attention away from the animals themselves.

Using bone and found materials in the creation of my armatures is a conscious choice to resist the pedantic representation of living animals at the same time as resisting the complete embodiment of something prosaic. I strive to balance *spacesuits for animals* on a thin but fuzzy boundary between the artwork possessing coarse literality through material (deliberately working with heavy equipment and making permanent physical modifications to eschew the superficiality of layering), and the artwork continuously becoming increasingly sculpted into a creative, speculative, poetic universe. This is my manifest ethics.

And one final note: taxidermy is incredibly fragile; you can never clean it enough to make it 100% mothproof (Fig. 61.) and it must stay cool and dry. Also,

27. Leah McLaren, "Taxidermy trending in East London's fashionable design space," *Maclean's*, 2013, http://www.macleans.ca/society/life/dead-and-loving-it/ .

the preservation chemicals used are harmful to people. In a kind of reversal of my power to taxidermy animals, the taxidermied animal (like the moon rocks) holds me captive with all its demands.

Fig. 47. Montagu Browne, "model of a ruined belfry window and young barn owl," *Artistic and Scientific Taxidermy and Modelling...*, Frontispiece. Example of a 'life mount'.

Fig. 49. Gavin Hanke, "A female Black-chinned Hummingbird (RBCM 11553) in left side view," *The Royal British Columbia Museum*, 2007, http://www.virtual-museum.ca/sgc-cms/expositions-exhibitions/colibri-hummingbird/Medias/Photos/img_RMBC_9_big.jpg . Example of a 'study skin.'

Fig. 48. "Detail of my artwork titled, *Doublag-angra* showing an example of a 'basic' taxidermied deer mount," photograph, 2009.

Fig. 50. Dani Tagen, *Left side view of whole of Horniman Museum object no NH.H.44, Walrus (Odobenus rosmarus): image of object*, photograph, ©Horniman Museum and Gardens, http://www.horniman.ac.uk/collections/browse-our-collections/object/190371 .

Fig. 51. Walrus-World, *Walrus – Odobenus rosmarus*, November 22, 2013, ©Walrus-World, http://www.walrus-world.com/walrus-odobenus-rosmarus/ .
A live walrus in the same position.

Image removed because of potential copyright restrictions.

Fig. 52. Crappy Taxidermy, "the beloved lion of grippsholm, sweden," (blog), August 23, 2012, http://crappytaxidermy.com/post/30078543673/the-beloved-lion-of-grippsholm-sweden-the-result .

Fig. 53. Pauline Guilmot, "Lion," *Réserve africaine de Sigean*, photograph, June 15, 2014, https://www.flickr.com/photos/paulineguilmot/ .

Fig. 54. Géza Szöllősi, "Cow No. 3 (black & white)," *My pets*, taxidermied cow head, 2010, 40cm diameter, https://www.gezaszollosi.com/my-pets/ . Note, although this is an example of the second approach to taxidermy (i.e. an artwork) I use it an example here to demonstrate that animal skin is extremely malleable and that it is up to the armature to make the animal an animal again.

Fig. 55. R. E. Marble, "The Hicken's Fur Bearing Trout," *The Fur Bearing Trout*, Whitefish Montana, http://www.furbearingtrout.com/fish1.html .

Image removed because of potential copyright restrictions.

Fig. 56. Bob Petley, *Jackalope*, postcard, [n.d.], posted by L. F. Appel, *Do You Have A Jackalope Postcard?*," (blog), March 2, 2014, http://postcardcollector.org/forum/index.php?threads/do-you-have-a-jackalope-postcard.66/ .

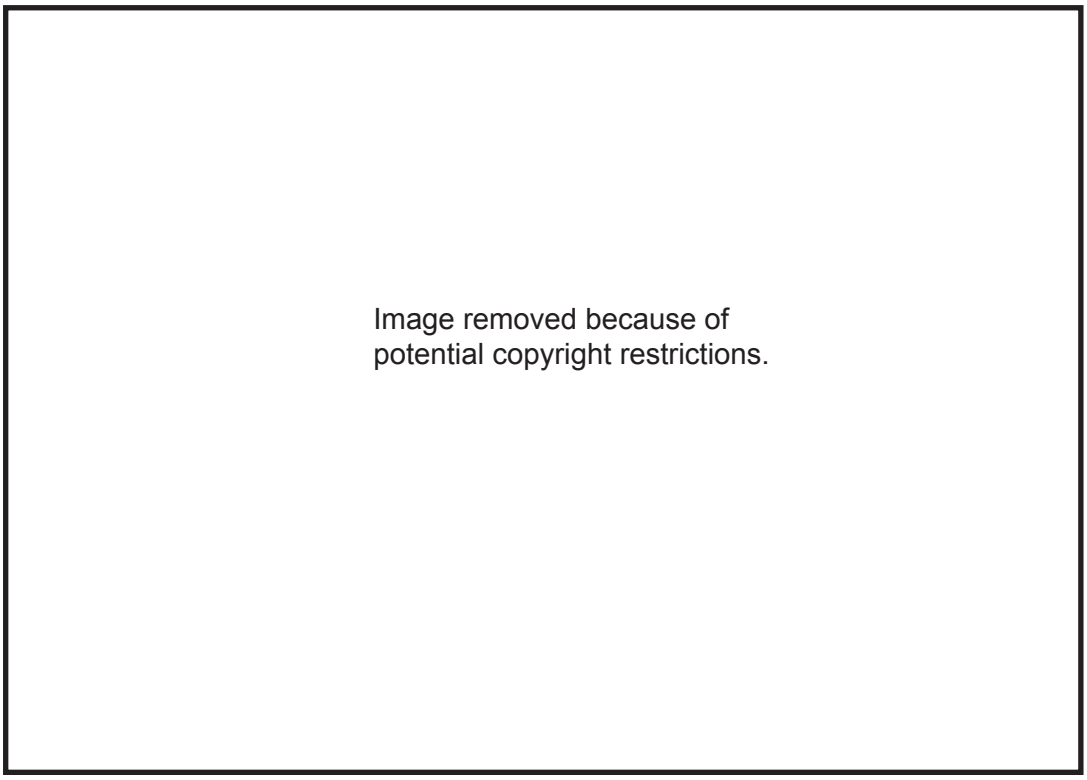


Fig. 57. Walter Potter, *Rabbits' Village School*, taxidermy installation, 1888, photograph by Pat Morris and Joanna Ebenstein, [n.d.], https://www.theguardian.com/lifeandstyle/gallery/2013/sep/13/curious-world-walter-potter-pictures-taxidermist-victorian .

Fig. 58. Robert Rauschenberg, *Canyon*, Mixed materials (oil, pencil, paper, fabric, metal, cardboard box, printed paper, printed reproductions, photograph, wood, paint tube, and mirror on canvas with oil on bald eagle, string, and pillow), 1959, 207.6×177.8×61cm, New York: The Museum of Moden Art, gift of the family of Ileana Sonnabend, ©Robert Rauschenberg Foundation, https://www.rauschenbergfoundation.org/art/artwork/canyon .

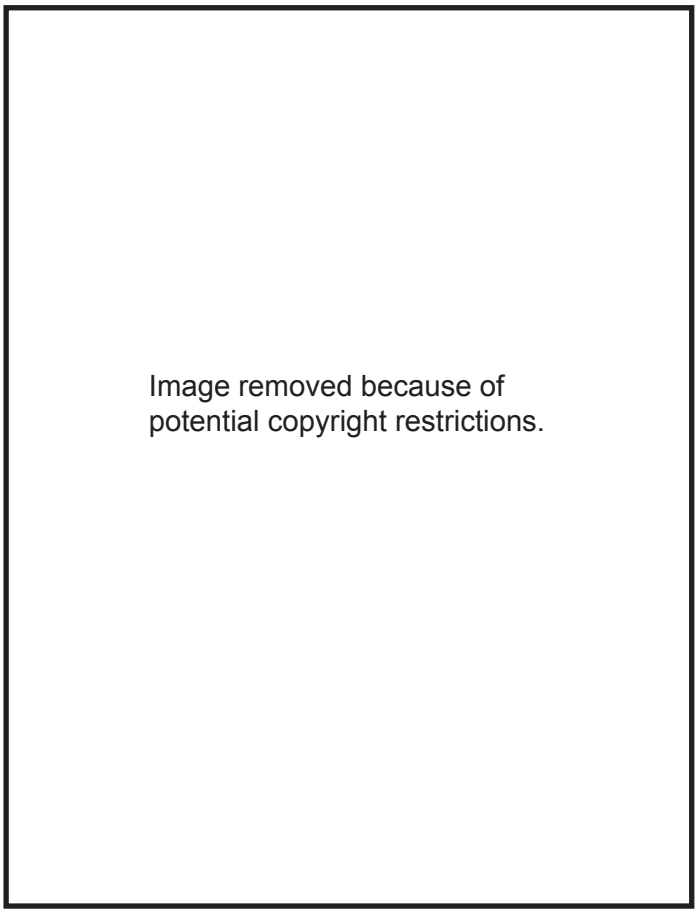


Fig. 59. Louise Weaver, *Invisible Bird*, mixed materials: sculptures, hand-crocheted cotton thread over Hoopoe bird (Upupa epops), sequins, glass beads, painted wooden base, 1997, 25x16x15cm, ©National Gallery of Australia, http://cs.nga.gov.au/Detail.cfm?IRN=127117 .

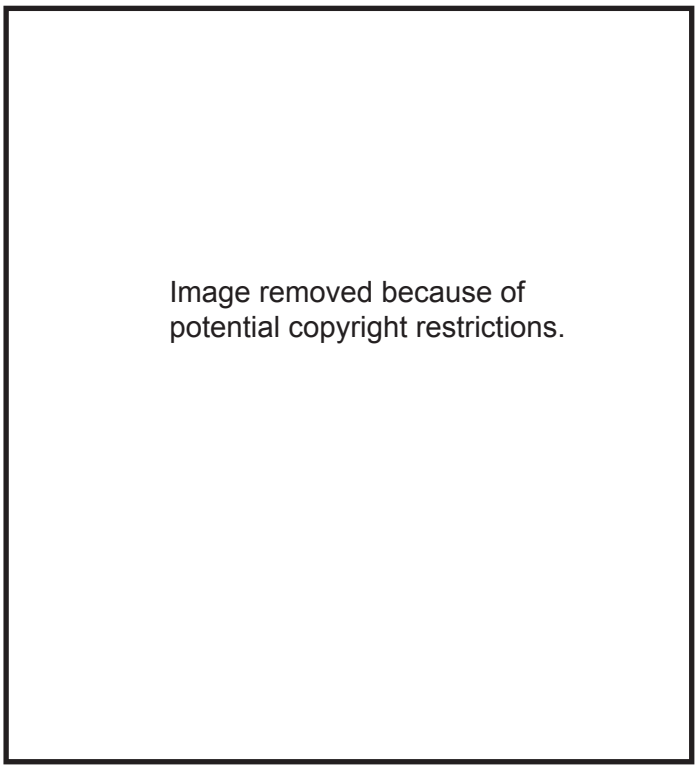


Fig. 60. Elaine Bradford, *Untitled (Peas and Carrots)*, sculpture, 2006, http://elainebradford.weebly.com/untitled-peas-and-carrots.html .

Fig. 61. “Moths ate the skin and fur off my taxidermy mice,” *space mice*, 2013, photo taken in 2015. Compare with mouse in Fig. 321. (p234) in the Report.

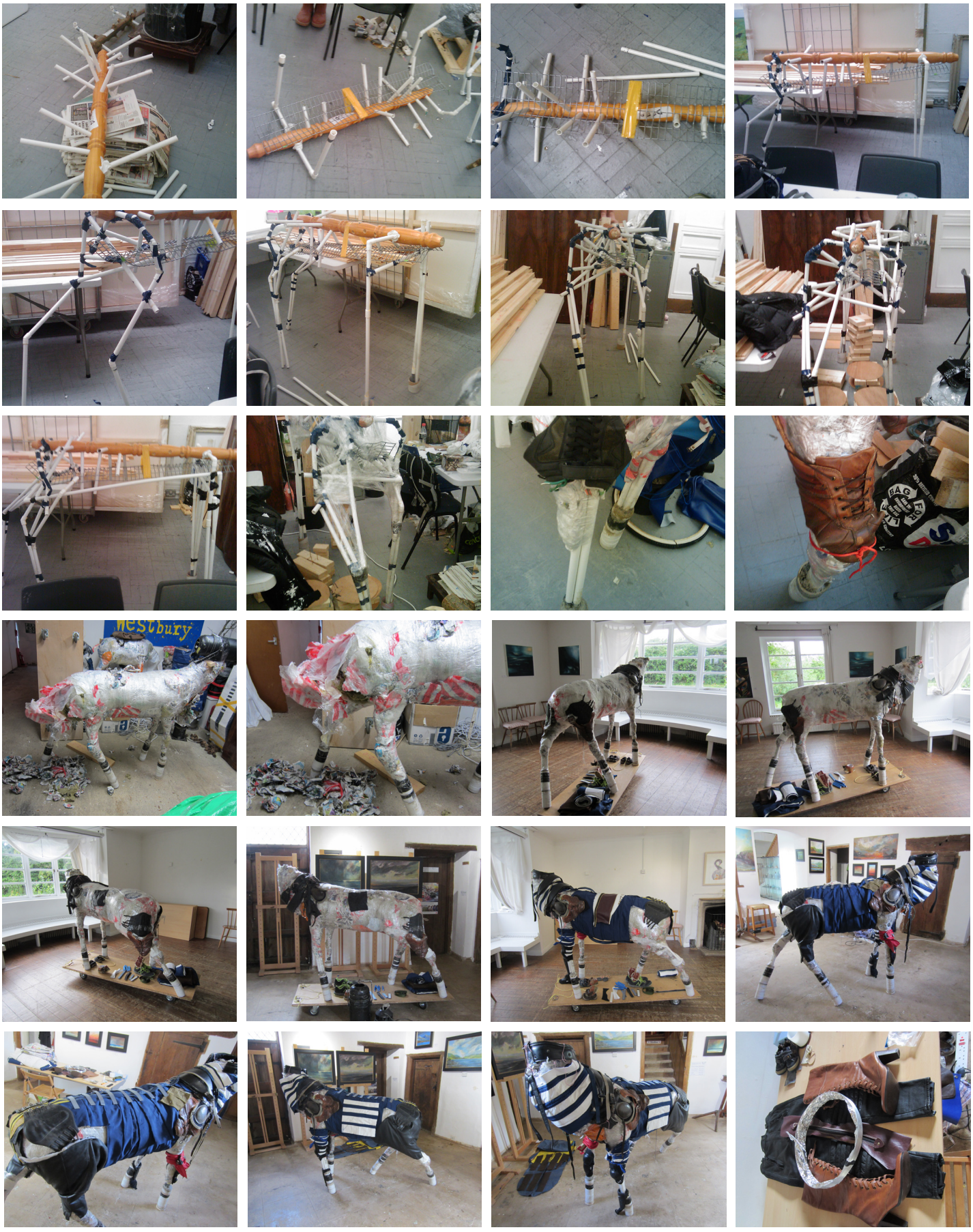


Fig. 62-85. "Process photos of *Stag*," *spacesuits for animals*, 2016.

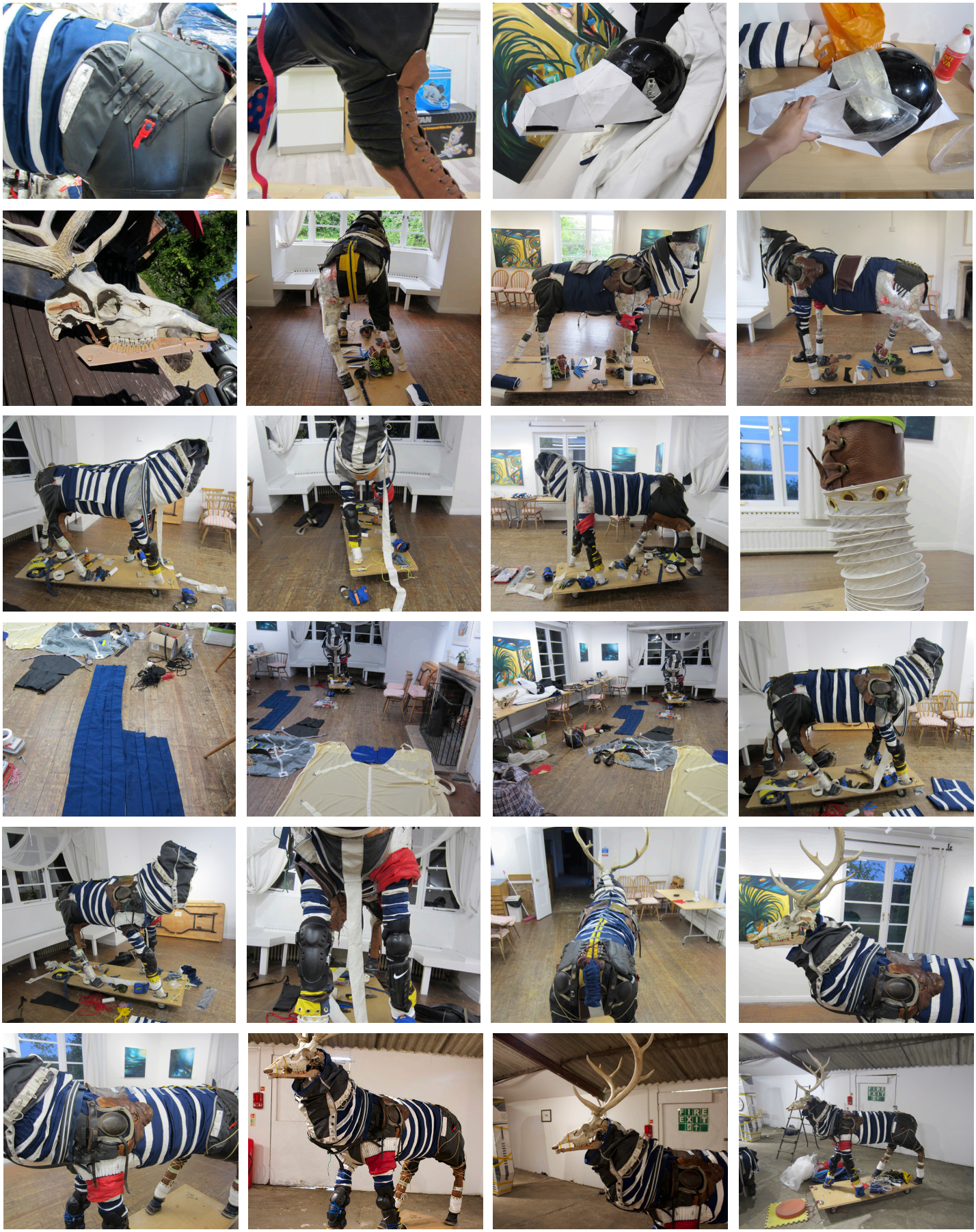


Fig. 86-109. "Process photos of *Stag*," *spacesuits for animals*, 2016.

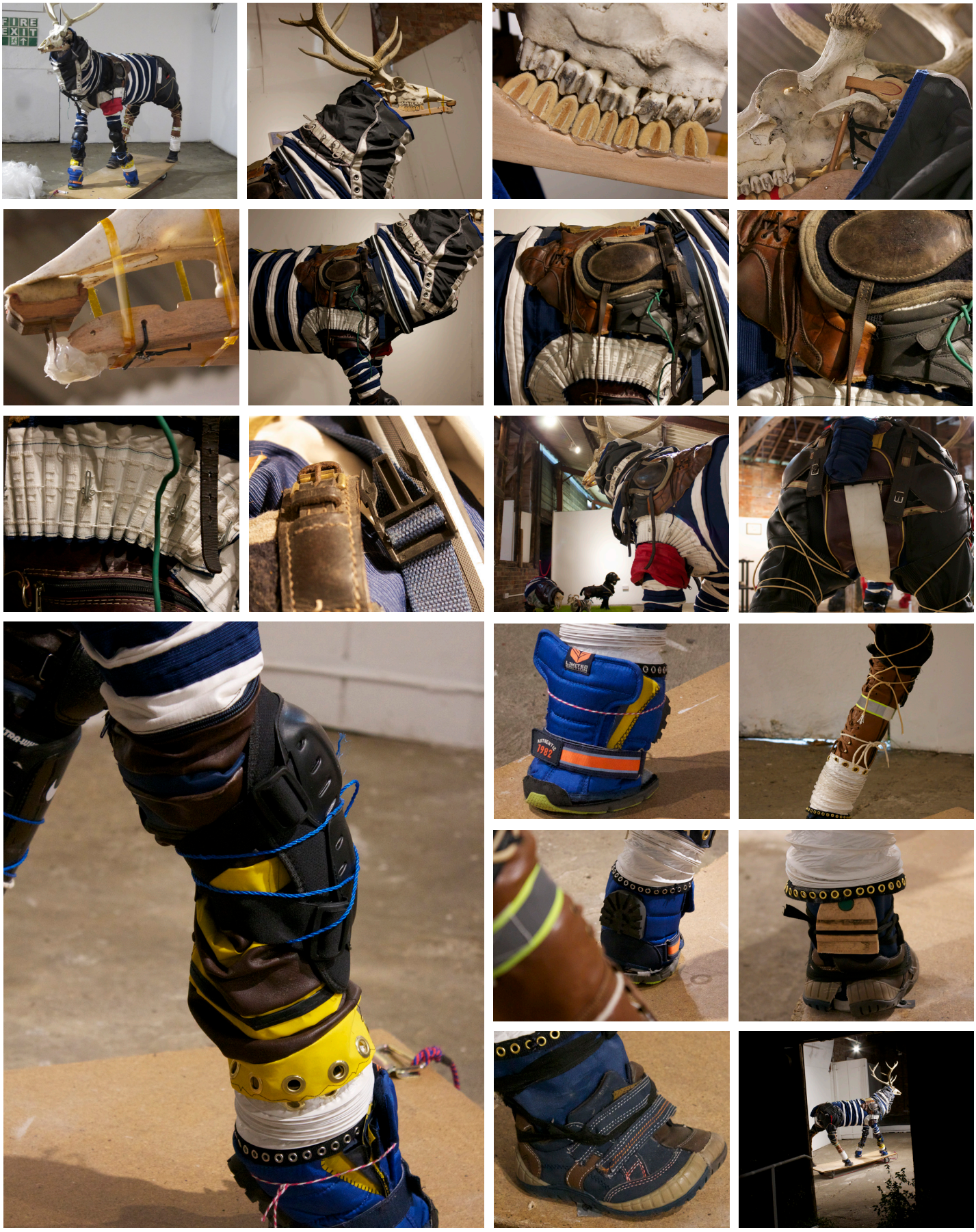


Fig. 110-128. "Process photos of *Stag*," *spacesuits for animals*, 2016.

Fig. 129-142. "Process photos of *L.A.M.*," *spacesuits for animals*, 2016.

Fig. 143-155. "Process photos of *Sheep*," *spacesuits for animals*, 2016.

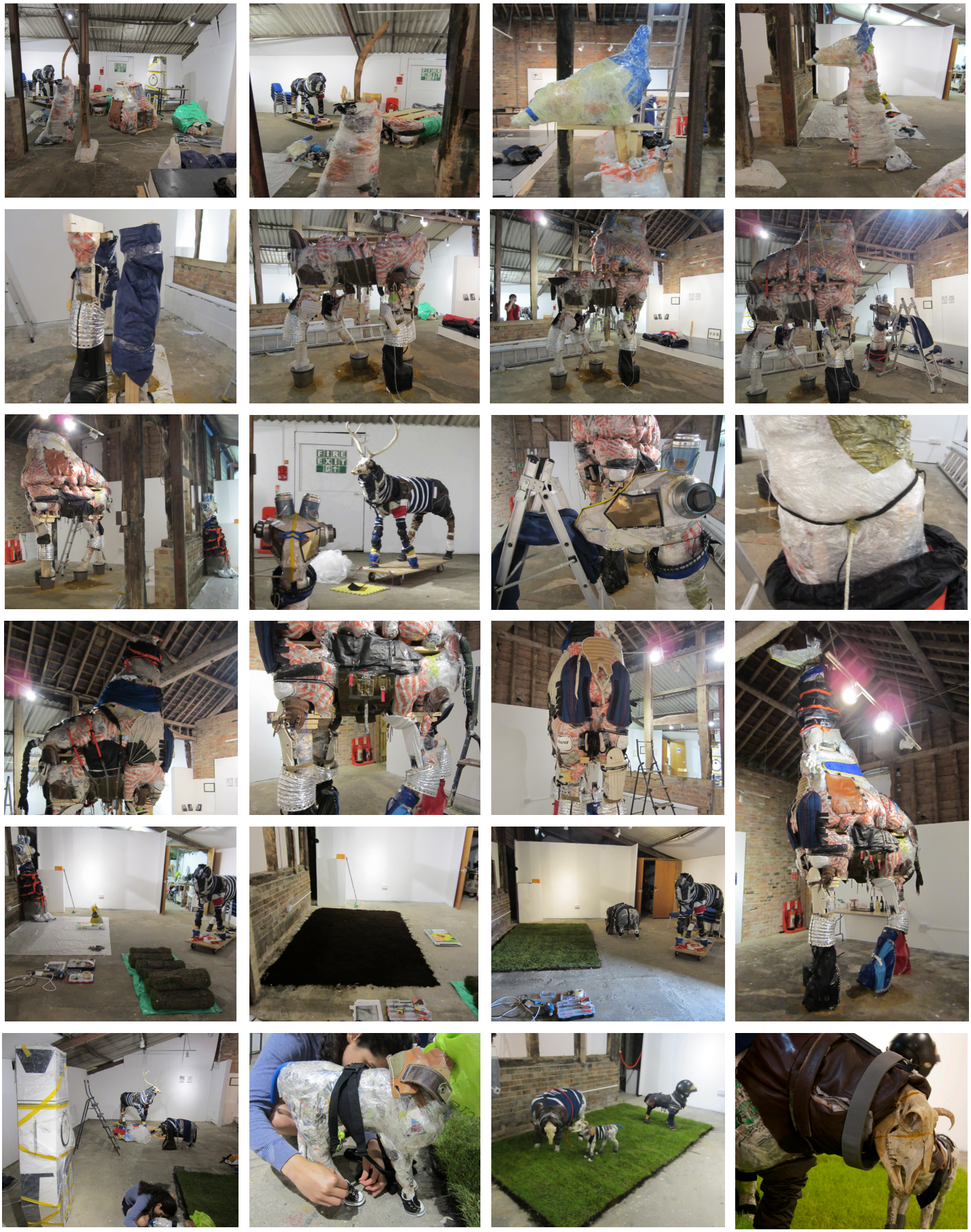


Fig. 156-178. "Installation of *SEEMS* residency/exhibition," *spacesuits for animals*, Milton Keynes: Westbury Arts Centre, 2016.

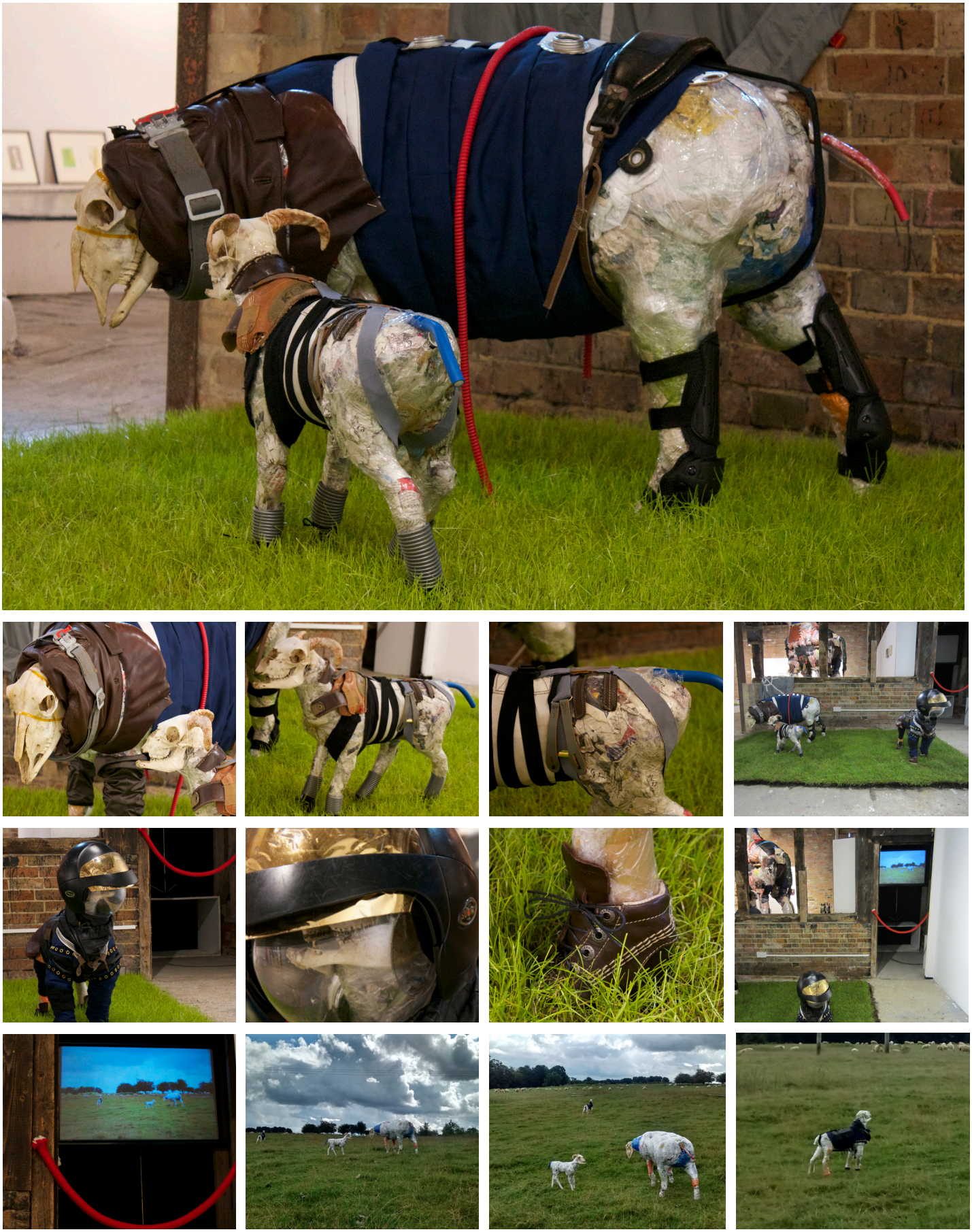


Fig. 179-191. "Installation of *SEEMS* residency/exhibition," *spacesuits for animals*, 2016.
The residency also included taking the sheep out to Shoulder of Mutton Hill in Milton Keynes and shooting a video of them exploring their terrain. I presented this video in the exhibition.

Fig. 192. "Screenshot of Shoulder Of Mutton Hill video," *SEEMS*, 2016.
Fig. 193-201. "Installation of *SEEMS* residency/exhibition," *spacesuits for animals*, 2016.

Fig. 202. "Installation of *SEEMS* residency/exhibition," *spacesuits for animals*, 2016.

Fig. 203. "Installation of *SEEMS* residency/exhibition," *spacesuits for animals*, 2016.
Note the progression of *Russell*'s spacesuit and neck compared to the 2016 Slade Degree Show (*R.U.S.S.E.L.L.*) in the Report.

Fig. 204. "Installation of *SEEMS* residency/exhibition," *spacesuits for animals*, 2016.

Fig. 205-210. "Installation of *SEEMS* residency/exhibition," *spacesuits for animals*, 2016.

Fig. 211. "Ostrich armature in progress (note the resin cast ostrich skull)," *spacesuits for animals*, 2016.

Fig. 212. “Ostrich armature in progress,” *spacesuits for animals*, 2016.

Types Of Excess In My Practice

- "It's still good but I have no use." This almost never happens to me because bricolage follows that statement up with, "...yet."
- "It's still good but I have no room in my house." Heartbreaking.
- "What the heck is that?" Unidentifiable bits are the makings of an obsession.
- The completely trashy trash, like chewed bubblegum covered in grease. It is almost a raw material at this point.
- Project scraps, sometimes collected, sometimes leftover mess. I live in London, where bags of sand cost money, and therefore dirt that I already have is valuable.
- Tools bought are also excess!
- Redundancy. Each Apollo 11 astronaut owned three spacesuits: one for training, one for the mission, and one back-up.
- Mistakes produce excess. I might immediately incorporate the mistake into a project or store it in my studio as a reserve. I might design a new project just so that some particular mistake meets a need.
- This list is excess.

APPENDIX H

Notes on Stanley Kubrick's *2001: A Space Odyssey* (2013-2016)

Stanley Kubrick's *2001: A Space Odyssey*

I.

The ovular bay window of a space capsule opens facing a master bedroom of large mint walls and white cornice moulding. The floor is lit from below, like a fluorescent surgeon's theatre (or government office?) crossed with the Dorchester Hotel but with the floor and ceiling reversed. The camera angle methodically changes like a security camera. There is no movement except for Commander Dave Bowman's trembling but empty facial expression, frozen inside the capsule. All the upholstery is avocado, cream, ornate, Louis XVI, and immaculate. The built-in closets, I imagine, are completely empty, until the moment in which they are opened to be looked at.

But this is speculative. I will start again.

The room is symmetrical but the presence of a white and black space capsule has put this off kilter. Despite a minimal number of dressers, nightstands, and chairs in the room, they are situated haphazardly with only the bed, desk, and twin landscape paintings remaining in some sort of permanent position. Two statues, a desk, sconce, and knickknacks sit on shelves.

The space capsule disappears. The rapidly ageing Bowman steps out and discovers a doorway and beyond that an icy blue bathroom, decorated in the same style. Looking at Bowman's spacesuit, specifically the clear plastic tubing that connects his oxygen from his pack into his

helmet, there is no condensation on either side.[1]

The room is not like a regular room – it is incomplete – a room not attached to any sort of building, or world, but rather it sits in some imagined space. It is all a fake, though a fantastically careful one designed with the intention of reassurance and not deception. It is only a matter of time before the suite dissolves back into the mind of its creator.

Bowman's breathing is muffled, methodical, and not the only sound in the room. The furniture is now more ordered. Bowman looks at himself in a mirror and then, now older, looks at himself looking in the mirror, from across the room. His red spacesuit has disappeared. He is wearing something stately and black, and eating from a table in front of the bed. With one more look he now sees himself in the bed – he becomes himself in the bed – and finally is met with the force that dissolves everything.

II.

This is the uncanny fate of astronaut Dave Bowman at the end of *2001: A Space Odyssey* directed by Stanley Kubrick and written in partnership with Sir Arthur C. Clarke. Clarke said,

[...] *in* 2001, *Stanley Kubrick and I have set ourselves several objectives. We hope to convey to the public the wonder, and beauty, and promise of the new age of exploration which is opening up before the human race.*[2]

1. Is there a similar atmosphere on the outside that could support humans?

2. Arthur C. Clarke in *The Making of 2001: A Space Odyssey*, dir. Paul Joyce, ed. Barry Reynolds, United Kingdom: Lucida Productions & Atlantic Celtic Films, 2001, DVD.

Fred Orway, the film's Scientific Consultant commented that at the outset, Kubrick, "wanted to make sure every detail was legitimate [...] at this time he didn't know where he was going to put the camera."[3]

Touring The Stanley Kubrick Archive at London College of Communication, it quickly becomes apparent that there exist hundreds upon hundreds of articles of concept designs that led to the imagining of *2001: A Space Odyssey*. One article depicts a painting of the outside of the main Torus station and another, the drawings for the opening ape sequence.[4] There are several alternate scripts and countless depictions of additional sets that were not seen in the film. Amongst this material is a drawing of a fair-haired woman wearing something like a Greek toga with an accompanying essay written by the film's stylists (Fig. 213.). The text outlines a social philosophy designed to anticipate what people will look like in the imagined future and describes that in 2001, everyone is as beautiful as they want to be due to various procedures. Looking natural with minimal make-up is key. It also discusses fantastical trends such as placing cocoons into one's hair that hatch into butterflies as you enter a room — attending a party perhaps — to signal your entrance (Fig. 214.). A second text titled *Underwear in the Year 2001* contains further visualisations related to fashion, styles, and trends.

Despite the archive's density of material, the film, as best exemplified by its final sequence, remains visually spacious. The moulding, bedding, paintings, and fixtures within the final bedroom scene are detailed and solid, but in between them there is blank space, a floor made of light, and smooth surfaces ready to be projected upon. Kubrick in a generative and over-productive methodological

3. Fred Orway in *The Making of 2001: A Space Odyssey* while standing in NASA's Lunar Excursion Module.

4. All of the apes have names (this information was not included in the film). The ape that learns how to use tools first is called Moonwatcher. Arthur C. Clarke, *The Lost Worlds of 2001*, New York: New American Library, 1972, p59.

rigour fleshed out a full universe, but as soon as he knew where he was going to 'put the camera' within that universe, applied strong edits to simplify its form. What remained was the innovative, beautiful, and thoroughly impressive quality of the film **functioning to say much with little while also expressing the punctiliousness of being edited down from much.** The archive — though compelling in its own right — is merely a quantifiable means of demonstrating what is already sensed within the film.

When I found myself connecting discordant elements like rapid ageing, historical furniture, and futuristic technology as contained within the film, I realised that every bit of silence, every hole, every inaudible conversation was active space. This space may not readily sustain a specific, verbal analysis but that is precisely because it was designed to convey wonder, beauty, promise, and to allow the audience to feel these things through the theme of exploration. In the entire archive I found only one page of director's notes dedicated to the final bedroom scene. At the top of the page it indicated two numbers marked as timings (in seconds) for the ageing sequence (Fig. 215.). In contrast to his compulsive, excruciatingly detailed accounts of the other scenes, the rest of the page was completely blank. It seems that when wanting to communicate the whole universe, Kubrick's greatest effort was that of restraint.

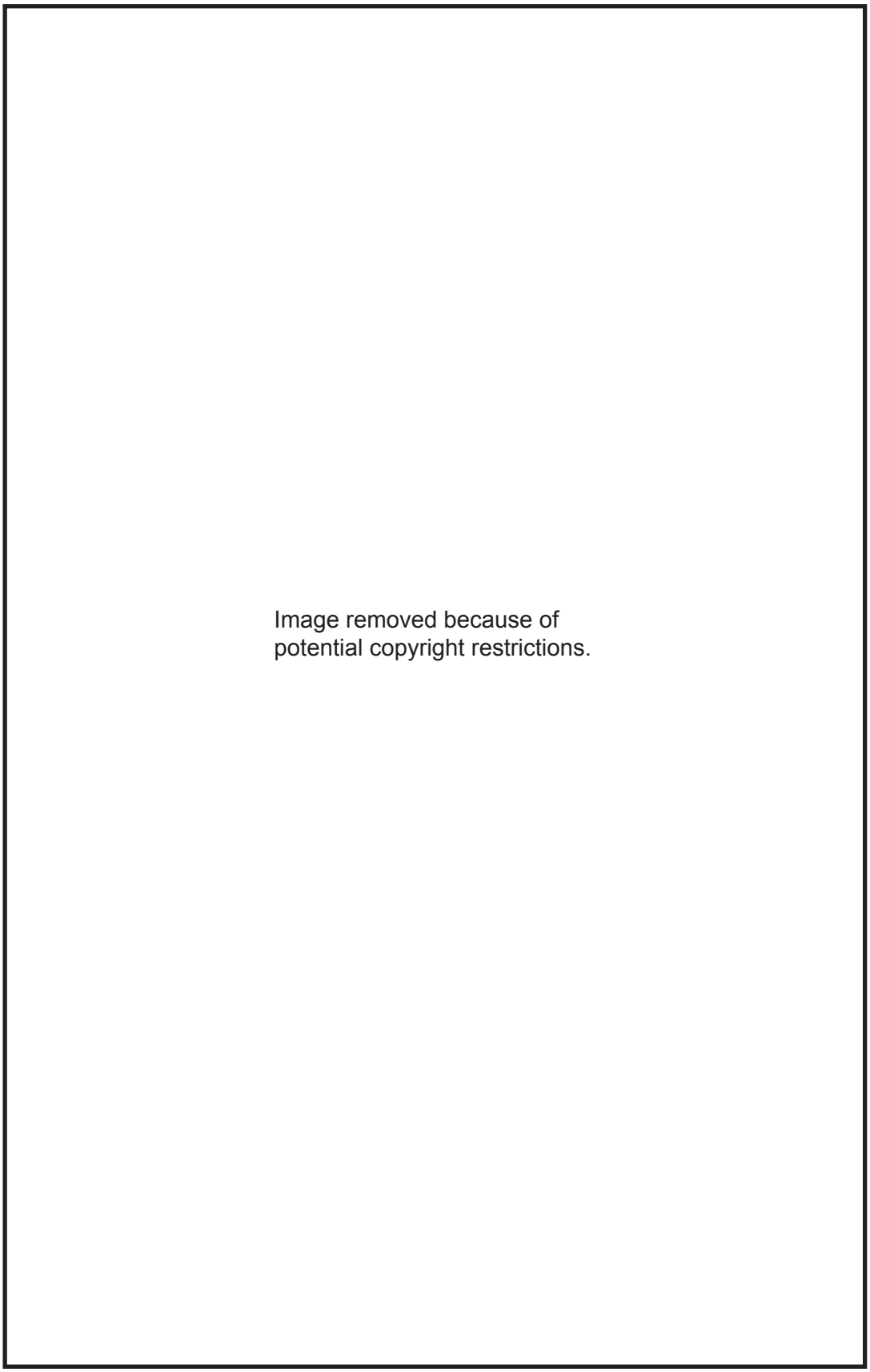


Fig. 213. COTY, *Make-Up and Hair Fashions 2001*, excerpt from 1960's COTY development file for the film *2001: A Space Odyssey*, ©Warner Bros. Entertainment Inc., retrieved from The Stanley Kubrick Archive, University Archives and Special Collections Centre, London College of Communication, London, accessed April 2014.

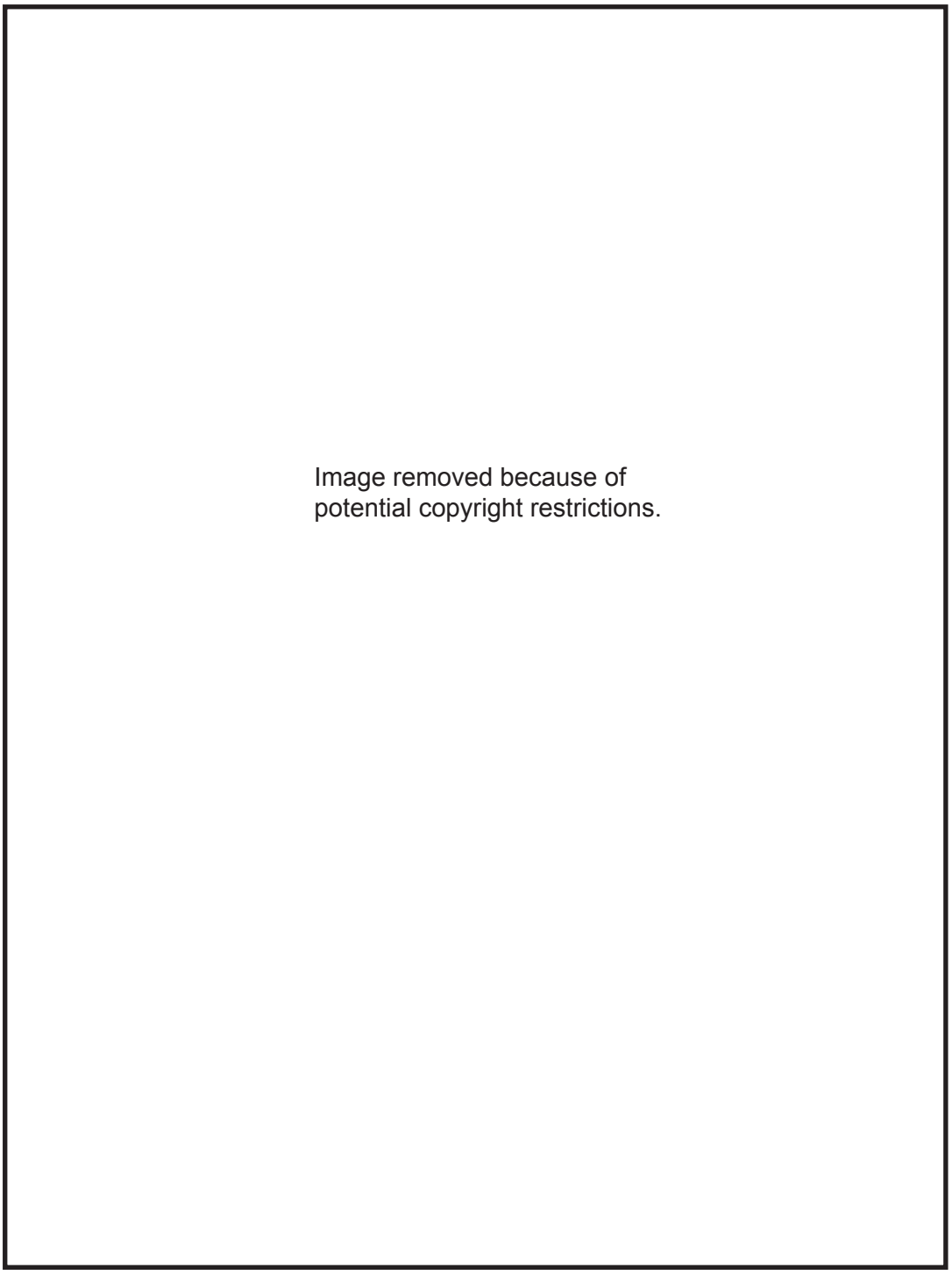


Fig. 214. Marc Sinclaire, *Make-Up and Hair Fashions 2001*, excerpt from 1960's COTY development file for the film *2001: A Space Odyssey*, ©Warner Bros. Entertainment Inc., retrieved from The Stanley Kubrick Archive, University Archives and Special Collections Centre, London College of Communication, London, accessed April 2014.

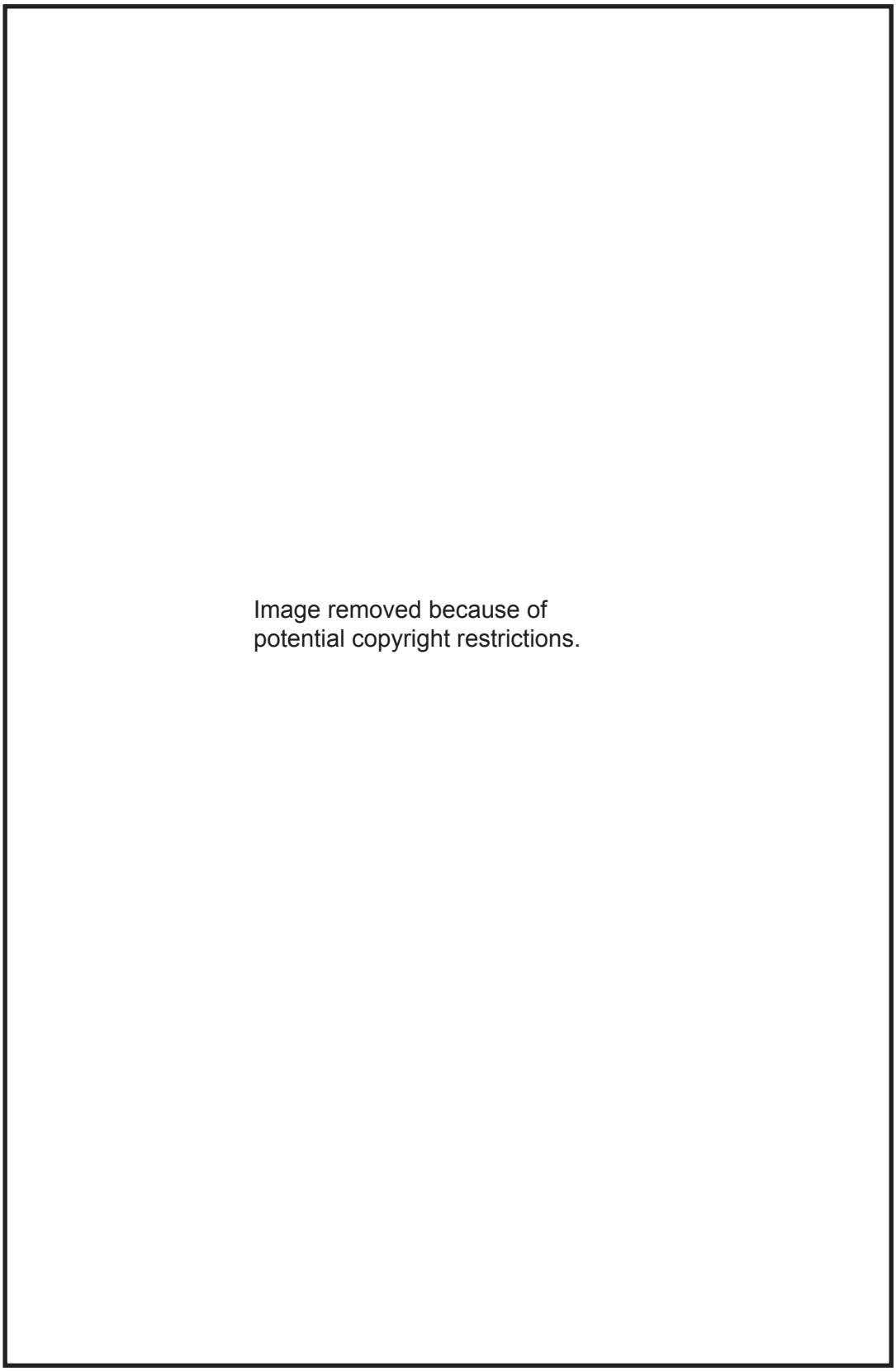


Fig. 215. Stanley Kubrick, *Kubrick's Notes*, 21 Oct 1965-June 1967, retrieved from The Stanley Kubrick Archive, University Archives and Special Collections Centre, London College of Communication, London, accessed February 2015.

III.

By viewing and reflecting on this final scene, I was finally able to imagine a structure in which to evaluate the effectiveness of my own practice, and for the first time identify with a process instead of determining my position negatively, by identifying what it is not. I see the floor of the bedroom as a kind of grid, a map that records the movement of Bowman and the objects as they appear, disappear, and move through the space. I am reminded of my own tunnel vision when making an artwork and see the bedroom as an artificial structure assembled to both work within and transcend while serving my own creative dialogue (an invented box to think outside of). The bedroom, now occupied, has become my methodology of studio practice. As it undergoes physical and conceptual manipulations, the bedroom holds within it the evidence of these processes and creates paths to see beyond what is literally observed; all of these things become real *as I learn to articulate them*.[5]

In viewing the film, I believe it is possible to experience Kubrick's aims and understand the weight of their implications, even though nothing is didactic and very little is explicitly revealed on the screen. In this way my own final exhibition of artwork will become a path that exists as a result of my sprawling collection of produced material (my project's universe), which will not define the collection's density but nonetheless convey its feeling, intensity, and research aims.[6] The materiality of my artwork will form a superficial *and* essential connection to the rest of what is being evaluated and will elicit, rather than describe, feelings, relationships, and processes. It is the most legitimate way I can think of to convey

5. *2001: A Space Odyssey* has thus become a starting place for my own process of research and strongly influences my work. I have come to incorporate its final scene into my work as I build a 1:12 scale model of the bedroom. By handling the materials it becomes at once a vicarious and present activity, which has presented a complimentary way to confront the subtle nuances of *copying*, *mimicking* and *repurposing already-existing materials* as I explore these notions within my research on cool and creativity.

6. By removing a certain amount of detail in exchange for (active) space, the artwork and report will become more powerful in communicating my thesis.

a thesis that I will come to develop through my own experiences as an artist and researcher. *2001: A Space Odyssey* will continue to serve as a guide through the editing process for my final exhibition, in which I intend to show an intimate collection of objects selected to carry the entirety of the project.

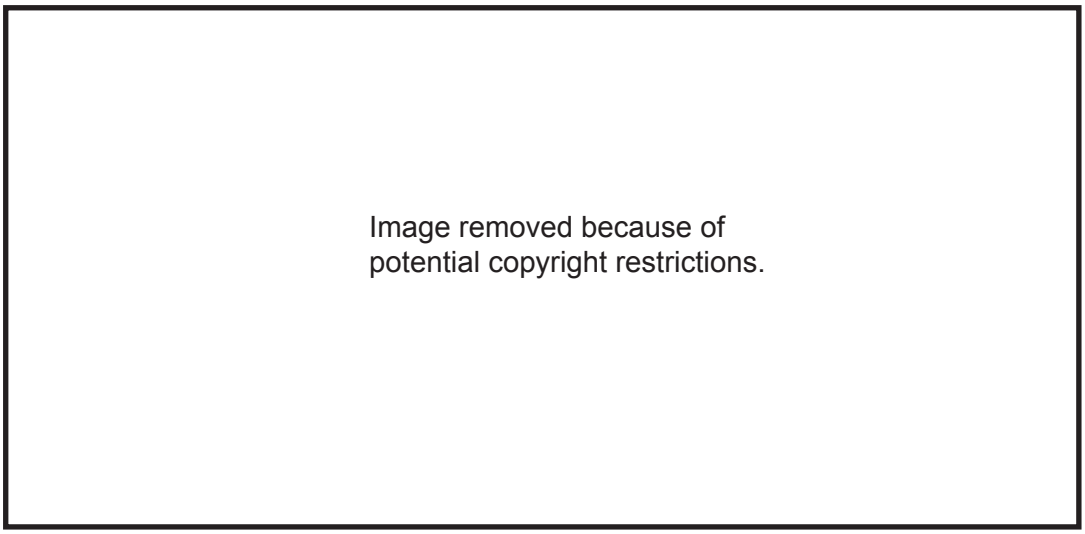


Fig. 216. *2001: A Space Odyssey,* dir. Stanley Kubrick, prod. Stanley Kubrick, May 10, 1968, London: Metro-Goldwyn-Mayer, 2008, ©Turner Entertainment Co. and Warner Bros. Entertainment, DVD. Screenshot showing the bedroom from the film.

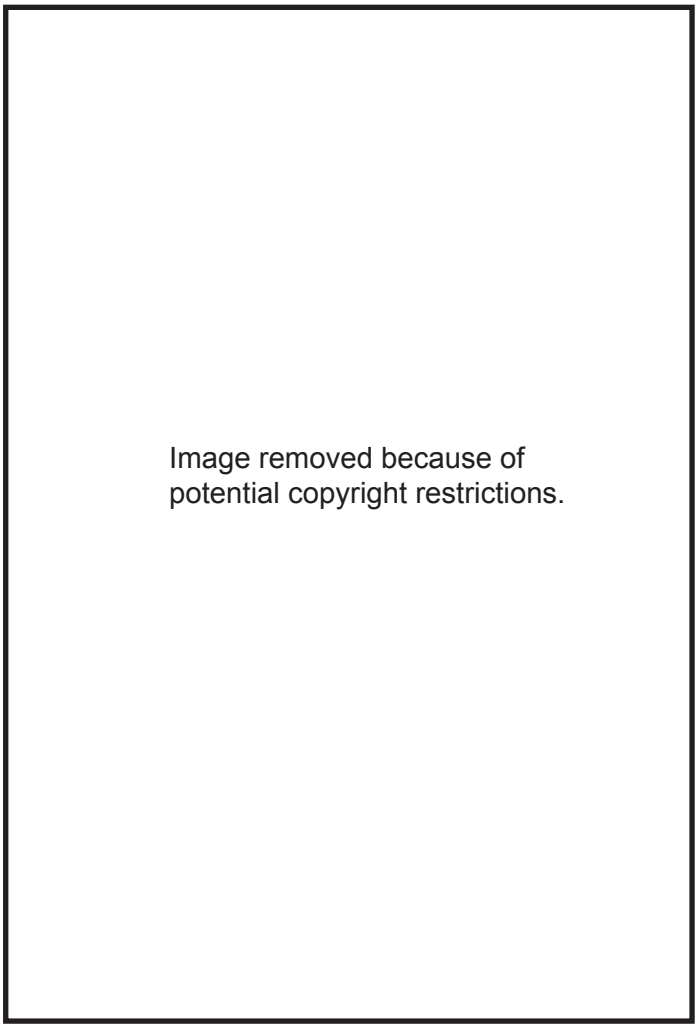


Fig. 217. Mehruss Jon Ahi and Armen Karaoghlanian, "Floor-plan_1," *Interiors: Issue 6*, June 2012, p4, http://issuu.com/interiorsjournal/docs/interiors0612 . The lines indicate the movement of Dave Bowman in the final bedroom scene of *2001*. "*The floor tiles serve as a compositional guide throughout the film and also assisted us in determining the actual size of the room. The room is composed of eight tiles by ten tiles with each tile being roughly 4' x 4' in size. The room also consists of a chair that sits beside a cabinet; its positioning moves throughout this scene resulting in a continuity error, but a close examination of the scene helped us discover that this was a deliberate decision on the part of Stanley Kubrick.*" Ahi and Karaoghlanian, *Interiors: Issue 6*, p3.

Kubrick Model Note 1

With my model building, I started by accruing furniture without a room to put it in. This was when the project was at its most frustrating because working without a view of the scale of the thing and fitting pieces together without anywhere to place them kept them... tentative. Without the room as a starting point, I instead researched to find a suitable scale and settled for 1:12, which is a dollhouse standard. I bought a 1:12 wardrobe on Ebay and used it to measure the other pieces against: the bed was too small and one of the side tables was too tall, so I adjusted them. With enough furniture at hand (Fig. 218-220.), I then tried to imagine the room that I would make and placed the furniture accordingly. I still wasn't sure about the walls and ceiling heights; I only knew the floor and only roughly. At first I thought I couldn't start with the room because I couldn't figure out how to construct it (an illuminated floor, arches, tiny frames, etc.) but after some materials tests I soon realised a means (Fig. 221.). I was still unable to build the room though because I didn't understand where the room itself was located. And so it remained mobile, ambiguous, and suspended somewhere in the unknown.

I started to understand what wasn't working with my report, while I was building the model. The model existed in the same unknown that my first attempt at writing my report tried to territorialise but ultimately remained obscured by.

The bedroom scene in *2001* doesn't really take place in a bedroom. The room itself isn't real — it was specifically designed to be understood as a representation of a bedroom, existing inside Dave Bowman's head, a combination of his own imagination and an omnipotent, external force. The bedroom was an olive branch of familiarity on the part of the higher power, used to ease the transformation process

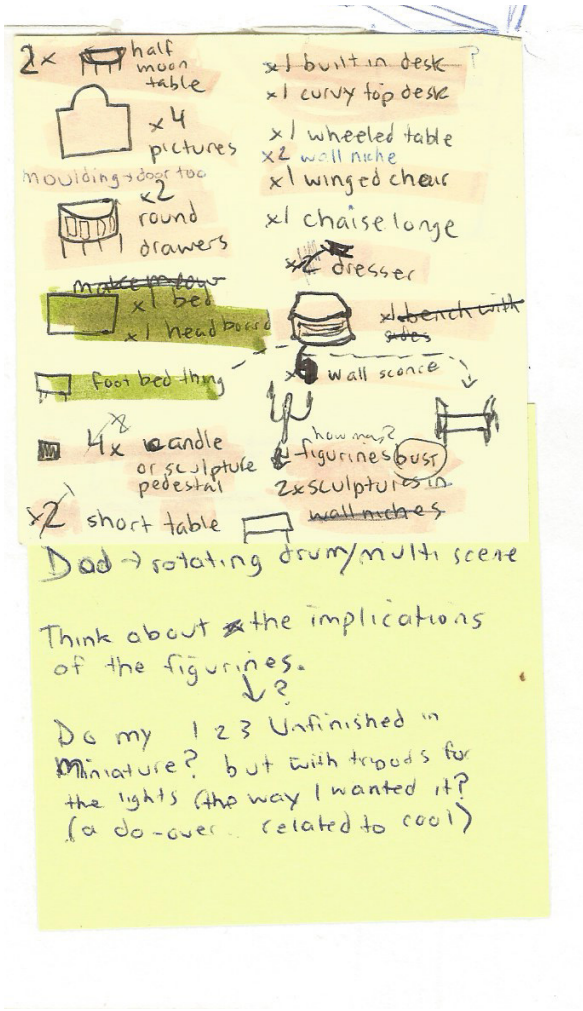


Fig. 218. *Inventory of furniture to be built for the Kubrick model*, 2014.

Fig. 219-220. *Work-in-progress Kubrick model parts*, materials include wood, bronze, plastic, acrylic paint, resin, plaster of paris, glass, cotton, velvet, and silk, 2015.

Fig. 221. "Kubrick Model as exhibited in *Lunar Salon*," *Lunar Salon*, 2015.

of Bowman into a Starchild by providing something intelligible for which to temporarily exist within.[7]

Despite the bedroom being a temporary structure, it was ultimately the most important part of the scene because without it, there would be no comprehension of the transcendence of Bowman's being taking place, no model for which to later dissolve and peer at infinity. Understanding this should have given me more reason to give clarity to the structure of my report but like I said, I can't picture the bedroom from the outside to see where it's located. And so, like the model, I decided instead to describe the parts of it that came into contact with the furniture as the furniture was being made. Each piece of furniture is a method and a unique section within my practice. The ones touching the walls of the bedroom might say a bit about methodology but none of them reveal the full bedroom picture: my fine art practice. Instead, I set out into an unknown space and made furniture (some of which was good quality) but produced nothing that could be considered a coherent set. The scales were inconsistent and as evidenced in my report draft writing, I kept stumbling over things that I came across in trying to feel around for the next piece. Sometimes I stumbled over my own feet.

By the end of my first draft I finally started to write an introduction and incorporate my artwork. By this point I was on my hands and knees, feeling around and experiencing directionlessness. Thinking directly about the physical nature of the artwork was so clear, so intense, that it brought on a sadistic pleasure, like my hands and voice were violating the sculptures and bending them around my own will as I transferred them to the page and dealt with them as objects of my desire. It felt too easy in the sense that I was concretely able to communicate what was hap-

7. I wonder if the Overview Effect is the inability to conceptualise something immensely large and outside of ourself… so we turn inward.

pening within them, what they looked like, felt like, their size, and duration.

I recognised that on one hand I was presenting a superficial analysis but also that this surface was everything: the structure, the way forward, the real beginning of my report and the stuff that all my future content must at least pass through. I wondered then, if the artwork was the thesis and the report was coming directly out of it, what was the purpose of this directionlessness, stumbling, frustrating, sometimes painful first draft? For better or for worse, it was a real representation of my creative process. The abandonment of structure in favour of pseudo-structures and my free-falling, experiential, exciting, adventurous, and exhausting process is not just the road less travelled — it's not even a road — at least not to start with. This process is where cool (being cool/a cool personality) and creative practice (my bricolage practice) overlap, which means that to some extent my use of bricolage influences my understanding. Despite being an internal structure (like the bedroom in Dave Bowman's head) the writing process was a way to interact with something outside of myself (the monolith) and is just as much an adventure as any of my external experiments on materials.

Physically making must work in tandem with my formulation of ideas. When I come home and my hands are bleeding, it certainly feels different than just putting my ideas down on paper but I am never just doing one or the other. Both are elements of the same narrative. This narrative becomes evident through exhibition. What my report is specifically concerned with is the hard part, that is, trying to communicate how these elements work together.

** It is no coincidence that just before writing this today I came across a discarded box and after seeing the size and feeling the weight of it, I brought it home to clean and dry out. I haven't started to place the furniture inside it yet but it felt good seeing the box and seeing the furniture together and finally having a real material (even if it's not a final one) in mind as I build and find things.*

2001 Note 1

"So this project is about Apollo's sister then. Nice to connect them up like that! Am I being slow to only get this now?"[8] Assuming that I was referring to Artemis consciously, my mom asked me if she was being slow to make the connection between *Things Being What I Want Them To Be And Not What They're Supposed To Be* (2012/2013) and *spacesuits for animals* (2016-ongoing), and was surprised to find out that it was not something I did on purpose.

I find this situation to be of special interest. I think it directly ties into how I make someone cool and the fact that a distance between us sets up a situation for me to: see the big picture, fill in the gaps, and create a mythology that attracts increased creative generative activity on my part, which I attribute to the cool person. Finding Stanley Kubrick (and *2001*) cool makes me more creative as I try to 'figure out' his films. Calling someone cool is grounded in real observations (that can be credited directly to the cool person) but also, these observations resonate and are then made personally meaningful by the viewer, which is what gives cool, creative power.

8. Conversation with Margaret Fortais, Dec 14, 2014, via Skype.

Fig. 222. "Scene from *1 2 3 (Unfinished)* superimposed over screenshot of bedroom from the film *2001: A Space Odyssey*," 2014. I knew my film set reminded me of *2001: A Space Odyssey* but I also copied the placement of the figures without realising it.

Kubrick Model Note 2

… I went box-crazy. Addicted to the excitement of their potential I collected boxes of all kinds and was not completely satisfied with any of them. They sat in my kitchen holding materials and being momentarily useful or were immediately absorbed by my studio. The only trace of their potential to become the room for my model exists within this writing. Functionally, as soon as a found material doesn't solve my problem, it is anonymised and catalogued in my bricoleur's universe for future work.

As the boxes built up I began to distance myself from the idea of the ready-made altogether and was finally able to see that searching for the perfect box was an artificial environment that I created to distance myself from a problem that could only be resolved by intensely working in the studio. Collecting boxes bought me time to dwell on details that incrementally improved the quality of the model but now it was becoming a distraction that threatened the completion of the project. I was able to step outside of collecting boxes and it became content for a new approach. I returned to the film. In Sir Arthur C. Clarke's novel of *2001: A Space Odyssey* he describes that the wardrobes and drawers in the bedroom were empty until they were opened, where they would then contain whatever you thought would be there.[9] Is this my solution?

9. Arthur C. Clarke, *2001: A Space Odyssey*, London: Arrow, 1968.

Kubrick Model Note 3

The model is contained within a 1:3 scale wardrobe and presented on trestles. The wardrobe was originally a full size wardrobe (Fig. 223.) and was cut down to l:115cm x w:57cm x h:95cm. The wardrobe lays on its back (Fig. 224-225.) with the doors slightly propped open, revealing a glow from within (Fig. 226-227.). Repurposed deep-sea macro camera lenses and apartment peepholes permit fish-eye glimpses into the model, mimicking the camera angles from the film (Fig. 228-230.). The lens distortion creates distance, which makes the model appear highly realistic. Like the film set, the model has an illuminated floor (Fig. 228, 231.).

Fig. 223. *The original wardrobe before alteration*, 2015.

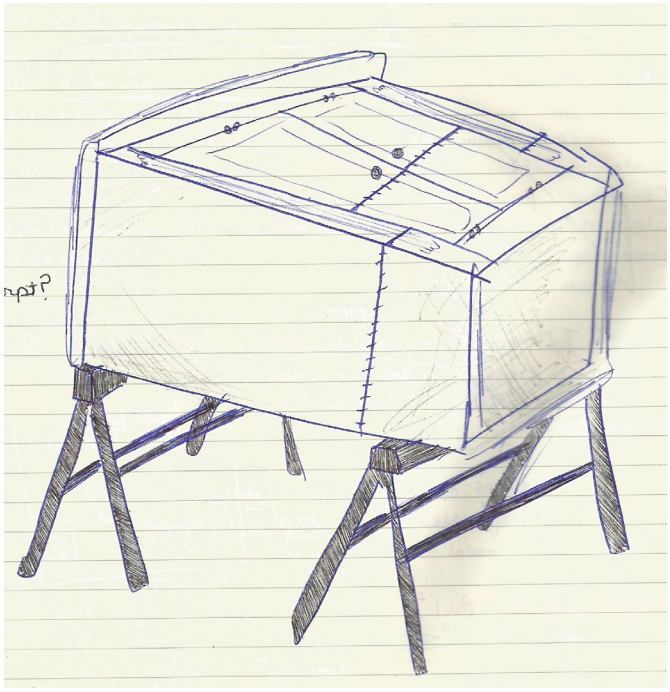


Fig. 224. *Sketch showing seams on Kubrick Model*, 2015.

Fig. 225. *Cut-down wardrobe for Kubrick Model*, 2015.

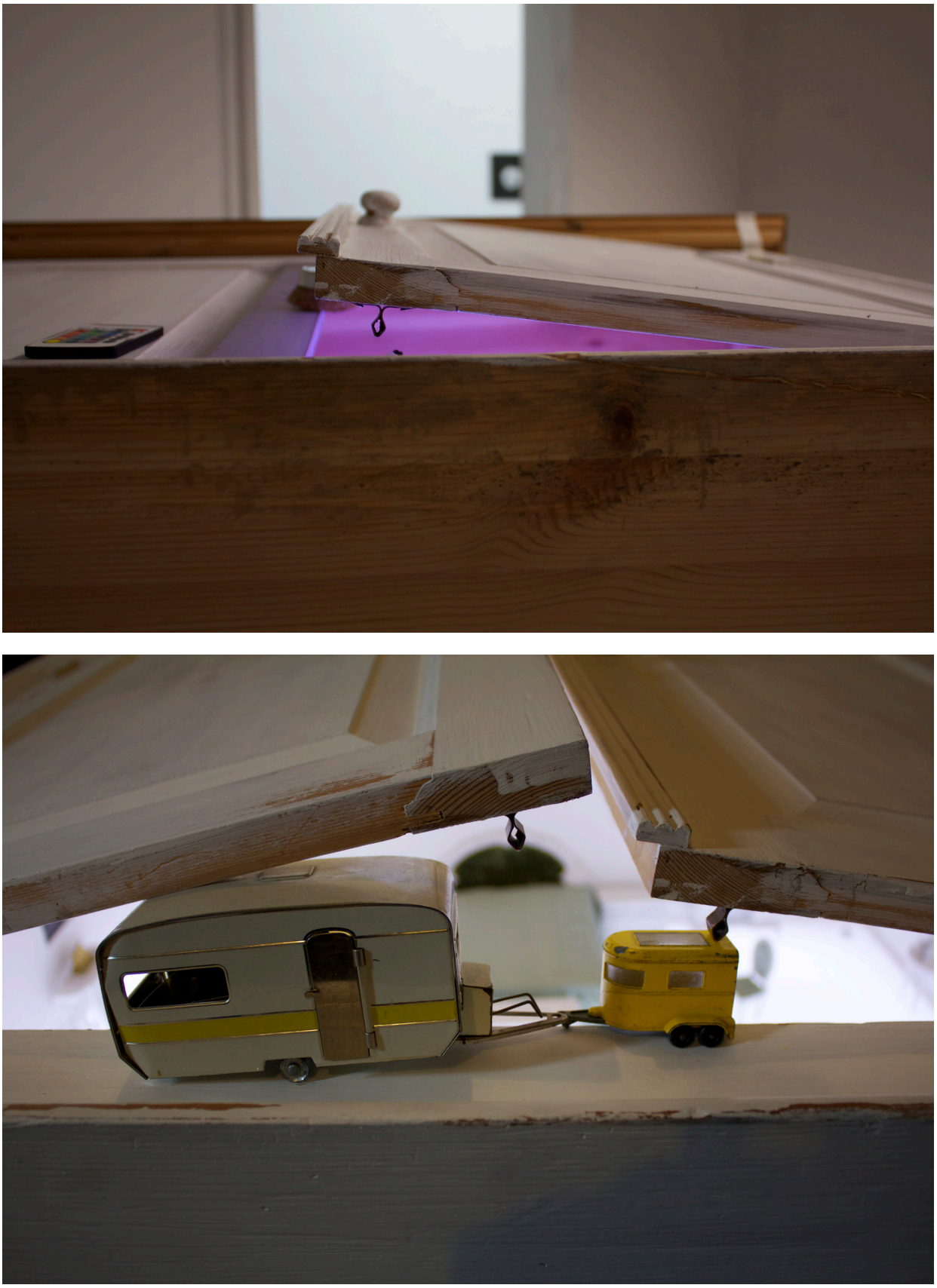
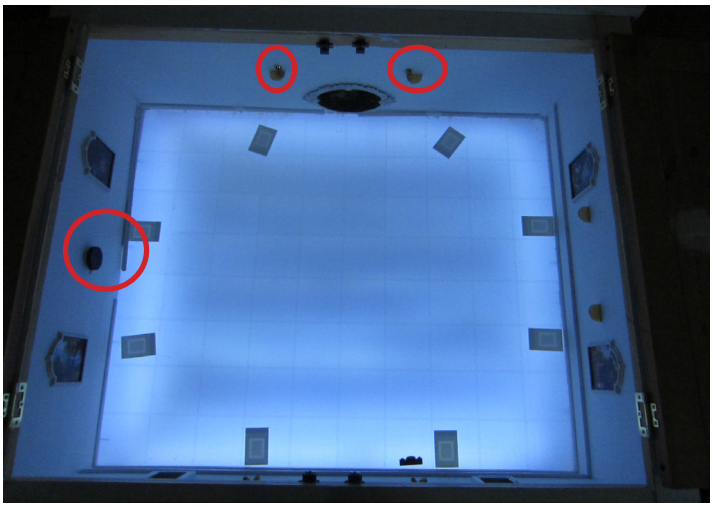
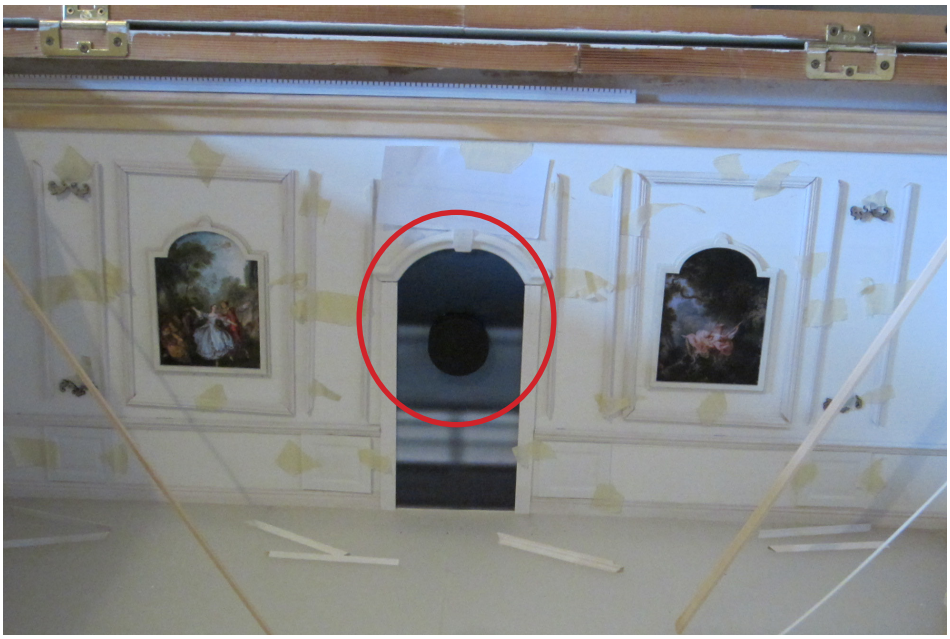


Fig. 226-227. *Kubrick Model showing doors propped open and light emanating from the model*, 2015.





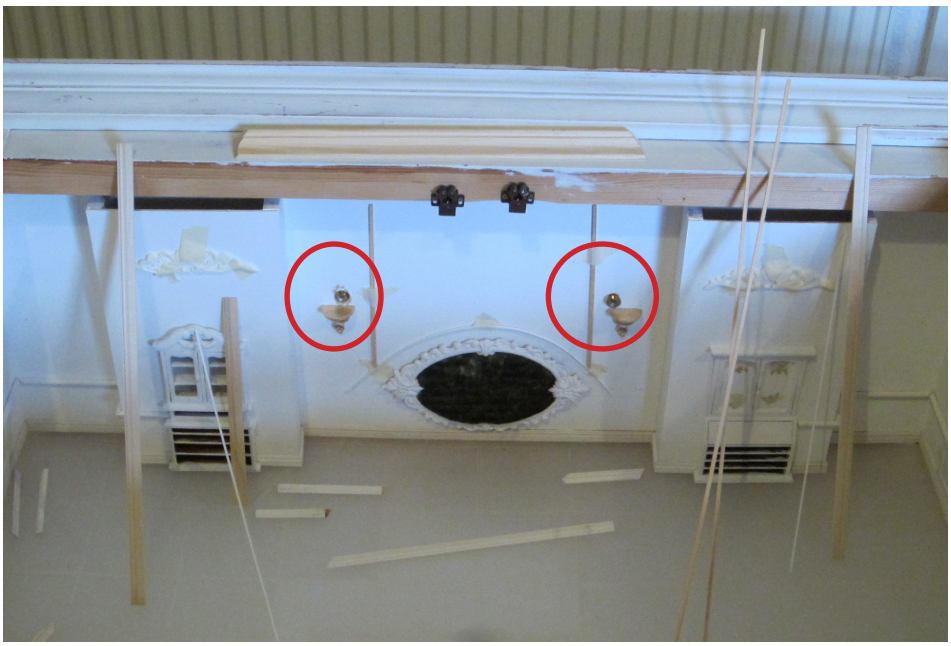


Fig. 228-230. *Images of work-in-progress Kubrick Model with viewing lenses circled in red,* 2015.

Kubrick Model Note 4

With each intervention that I undertook to make my model more like the original, the details created by my own hand inadvertently produced a unique character and gradually, it became something that I confidently took ownership of. This has repercussions in my research on cool, specifically regarding how I understand the subtle nuances of copying, mimicking, simulating, and recreating. My aspiration to copy the bedroom acted like training wheels until I produced enough material to make visible to myself a personal aesthetic and my own hand, which subsequently gave me confidence to change my motivation from copying to simulation. I eventually see leaving simulation behind as the model becomes completed and incorporated into an unknown future artwork.

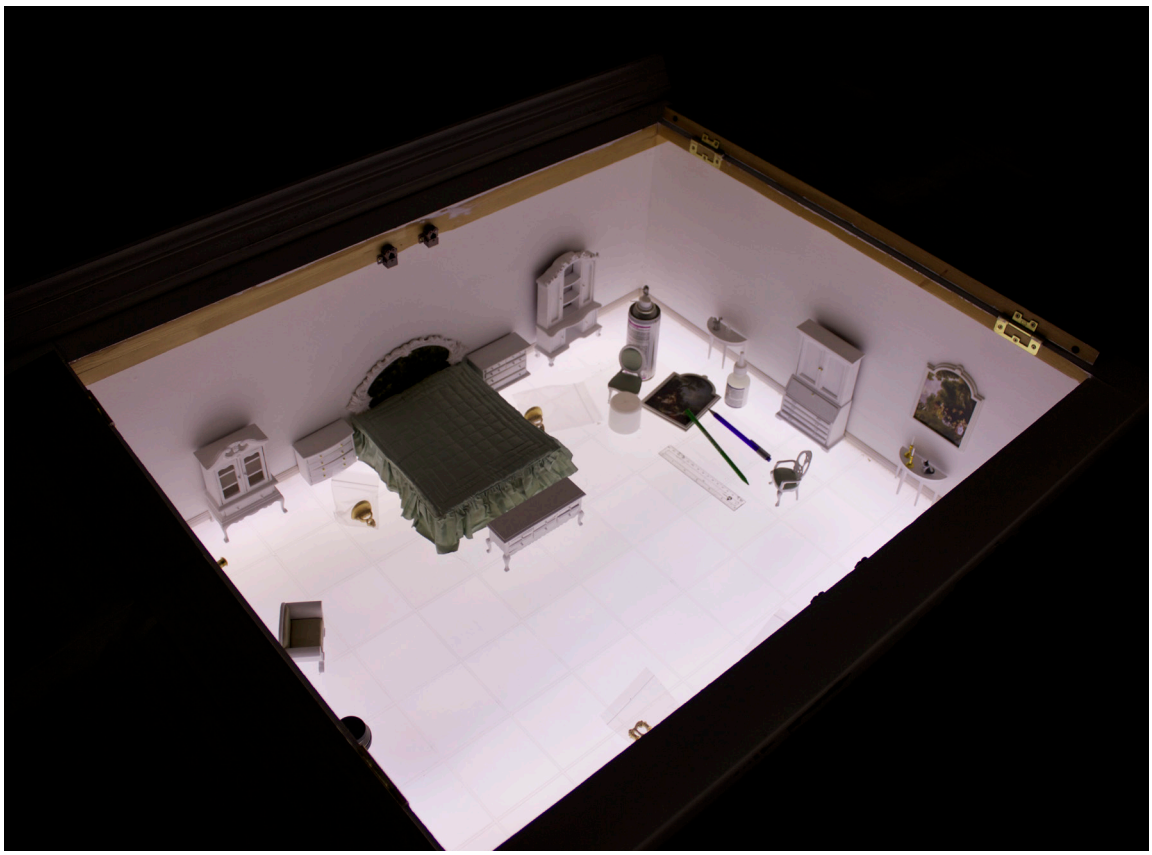


Fig. 231. *Kubrick Model showing illuminated floor*, 2015.

Fig. 232. *Kubrick Model in progress*, photograph by Josh Jones, London: Slade School of Fine Art, 2017.

2001 Note 2

It looks like the stark materiality of my space capsule in *1 2 3 (Unfinished)* was inspired by the hibernation chambers in *2001: A Space Odyssey* (Fig. 232.). These chambers later become the astronauts' tombs.

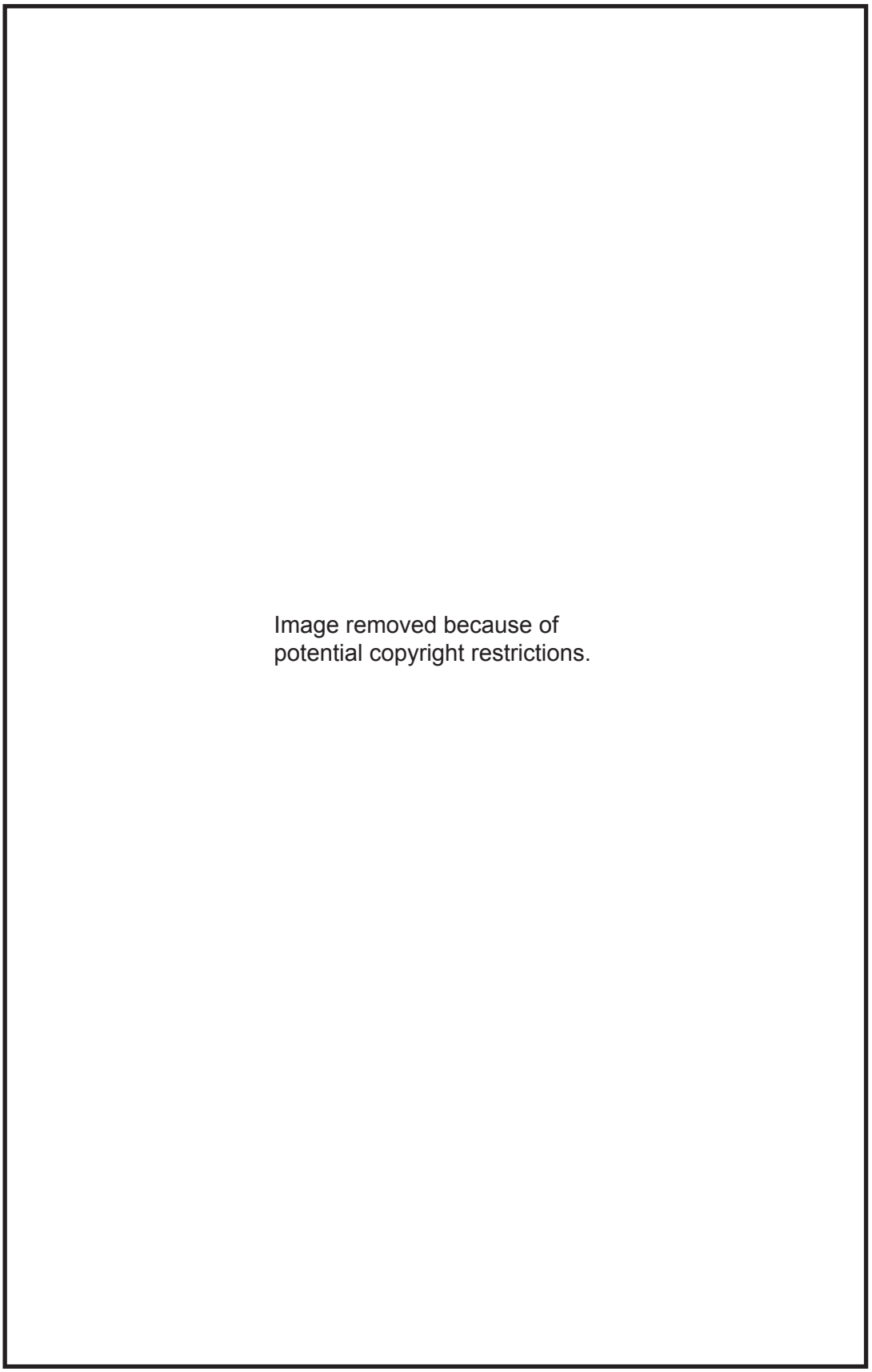


Fig. 232. Dmitri Kasterine. *untitled*, photograph, (approx.) 1967, ©Warner Bros. Entertainment Inc., retrieved from The Stanley Kubrick Archive, University Archives and Special Collections Centre, London College of Communication, London, accessed April 2014.